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ASSESSING THE PERFORMANCE MANAGEMENT OF NATIONAL PREPAREDNESS—A CONCEPTUAL MODEL

by

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December 2015

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Since its creation in 2003, the U.S. Department of Homeland Security (DHS) has allocated more than $40 billion in preparedness and homeland security grant funds to state, local, tribal, and territorial jurisdictions. The primary objectives of these funds are to develop and sustain the essential capabilities necessary to prevent, respond to, and recover from natural and man-caused disasters. Notwithstanding DHS's numerous efforts and initiatives, the ability to quantify and report on the effectiveness of these funds in meeting these objectives falls short of current federal requirements. This thesis examines statutory requirements for assessing and reporting on national preparedness, reviews the history of systems and programs developed by DHS to meet federal performance assessment and reporting requirements, reviews the fundamental principles of performance management, and assesses current elements of the homeland security enterprise. These reviews and assessments formulate a basis to remedy the longstanding shortfalls in preparedness performance management. This inquiry resulted in five overarching findings and twelve recommendations.

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**ASSESSING THE PERFORMANCE MANAGEMENT OF NATIONAL
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ABSTRACT

Since its creation in 2003, the U.S. Department of Homeland Security (DHS) has allocated more than $40 billion in preparedness and homeland security grant funds to state, local, tribal, and territorial jurisdictions. The primary objectives of these funds are to develop and sustain the essential capabilities necessary to prevent, respond to, and recover from natural and man-caused disasters. Notwithstanding DHS's numerous efforts and initiatives, the ability to quantify and report on the effectiveness of these funds in meeting these objectives falls short of current federal requirements. This thesis examines statutory requirements for assessing and reporting on national preparedness, reviews the history of systems and programs developed by DHS to meet federal performance assessment and reporting requirements, reviews the fundamental principles of performance management, and assesses current elements of the homeland security enterprise. These reviews and assessments formulate a basis to remedy the longstanding shortfalls in preparedness performance management. This inquiry resulted in five overarching findings and twelve recommendations.

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LIST OF ACRONYMS AND ABBREVIATIONS

APR	*Annual Performance Report*
CAR	Capability Assessment for Readiness
CAS	Comprehensive Assessment System
C2C	Cost to Capability
DHS	Department of Homeland Security
DOD	Department of Defense
EMAP	Emergency Management Accreditation Program
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
GAO	Government Accountability Office
GAP	Gap Analysis Program
GPRA	Government Performance Results Act
GPRA-MA	Government Performance Results and Modernization Act
GRT	Grants Reporting Tool
HSAC	Homeland Security Advisory Council
HSGP	Homeland Security Grant Program
HSPD-5	Homeland Security Presidential Directive 5
HSPD-8	Homeland Security Presidential Directive 8
LCAT	Logistics Capability Assessment Tool
NIMS	National Incident Management System
NIMSCAST	National Incident Management System Compliance Assistance Tool
NPG	National Preparedness Guidance
NPS	National Preparedness System
NRF	National Response Framework
NRP	National Response Plan

PCA   Pilot Capability Assessment
PIO   Performance Improvement Officer
PKEMRA   Post-Katrina Emergency Management Reform Act
PPD-8   Presidential Policy Directive - 8

QHSR   *Quadrennial Homeland Security Review*

SHSGP   State Homeland Security Grant Program
SLTT   State, Local, Tribal and Territorial
SME   Subject Matter Expert
SPR   *State Preparedness Report*

TCL   Target Capabilities List
THIRA   Threat and Hazard Identification and Risk Assessment

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I. INTRODUCTION

A. PROBLEM STATEMENT

Over the past decade, the U.S. Department of Homeland Security (DHS) has issued specific policy guidance documents directing the establishment of performance measures that assess national preparedness. These policy documents include the 2003 Homeland Security Policy Directive (HSPD)-8, the Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA), the 2010 Modernization Act, and most recently the 2011 Presidential Policy Directive (PPD)-8. Performance reporting requirements under these federal documents include developing preparedness plans and strategies; reporting performance metrics and measures; and identifying the risks of specific threats, and recognizing the vulnerabilities and prioritized objectives needed to mitigate those risks.

Numerous efforts to comply with performance measurement requirements have occurred over the past decade, but FEMA has yet to develop a system that satisfies these directives. As a result, there is increased scrutiny over the expenditure of federal grant funds and Congress has reduced the amount of federal grant dollars to SLTT programs by approximately 85 percent over a ten-year period.[1] Additionally, state, local, tribal and territorial (SLTT) entities are consistently identified in DHS Office of Inspector General audits as lacking a capability to track performance indicators.

The purpose of the inquiry for this thesis is to develop a model for collecting, analyzing, and reporting on the performance management of SLTT jurisdictions receiving DHS block grant funding for preparedness programs. This model is generic to account for the various geopolitical and strategic influences among the jurisdictions as well as the relevant natural and human-caused hazards and threats that present risks and vulnerabilities to each entity.

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1 Department of Homeland Security, *Budget-in-Brief Fiscal Years 2004–2014* (Washington, DC: Department of Homeland Security), http://www.dhs.gov/dhs-budget, accessed October 4, 2014.

B.   BACKGROUND

In the early 1990s, Congress found that excessive waste and inefficiency in federal programs undermined the public's confidence in government, which reduced the federal government's ability to address public needs adequately. Congress also determined the performance management of federal agencies was insufficient to set policy and inform spending decisions.[2] The outcome of this limitation negatively affected the efficiency and effectiveness of federal programs.[3] The frustration led to the development of the Government Performance and Results Act (GPRA), which obligated all federal agencies to develop strategic and performance plans with an annual reporting requirement. Congress updated the GPRA under the GPRA Modernization Act (GPRAMA) of 2010, which retained most of the original requirements with added requirements, processes, and reports.[4]

In keeping with GPRA and GPRAMA obligations, federal law and Presidential Directives established specific performance management requirements for DHS. In 2003, the Homeland Security Presidential Directive (HSPD)-8 charged DHS "to establish measurable readiness priorities and targets, include readiness metrics, and develop a system for assessing the nation's overall preparedness."[5] Three years later, the Post-Katrina Emergency Management Reform Act (PKEMRA) of 2006 required all national preparedness plans and strategies to include "updated, clear, and quantifiable performance metrics, measures, and outcomes."[6] Finally, in 2011, Presidential Policy Directive (PPD)-8 stated national preparedness "shall be informed by the risk of specific

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2 *Government Performance and Results Act of 1993*, Pub. L. No. 103–62, 107 Stat. 285 (1993).

3 Ibid.

4 *Government Performance and Results Act (GPRA) Modernization Act of 2010*, Pub. L. No. 111–352, 124 Stat. 3866 (2011).

5 George W. Bush, *Homeland Security Presidential Directive-8, Directive on National Preparedness* (Washington, DC: The White House, 2003), 1823, http://www.gpo.gov/fdsys/pkg/WCPD-2003-12-22/pdf/WCPD-2003-12-22-Pg1822.pdf.

6 *Department of Homeland Security Appropriations Act 2007* (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1428 (2006).

threats and vulnerabilities, taking into account regional variations and include concrete, measurable, and prioritized objectives to mitigate that risk."[7]

Over the years, DHS leadership initiated many projects to develop performance management systems that would collect information and report on state preparedness capabilities. A few of the systems evolved through several iterations—and there are indications of significant stakeholder involvement on some—but the systems never reached full implementation. Notwithstanding all the directives and the many implementation attempts, the significant shortfall in achieving a national preparedness assessment is the lack of "clear, objective, and quantifiable capability requirements and performance measures that are needed to identify capability gaps."[8]

The ability to implement a national preparedness assessment remains laden with many weighty challenges. First, many organizations collect data on emergency preparedness "for different purposes, in many different forms, and to differing degrees of thoroughness,"[9] because the responsibility for all-hazard protection, response, and mitigation flows across all levels of government. In short, the number of federal organizations involved in the nation's preparedness activities makes for a massive and complex enterprise. This problem is even more compounded if all state, local, tribal, and territorial jurisdictions—along with the various public and private entities—are appropriately included in the equation.

Second, DHS is still a new organization experiencing growing pains as it matures. For example, when DHS was created, all preparedness programs within the Federal Emergency Management Agency (FEMA) were transferred to DHS's new Directorate for Preparedness. Congress reversed the reorganizational change three years later under the

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7 Barack Obama, Presidential Policy Directive 8: National Preparedness (Washington, DC: The White House, 2011), 2, http://www.dhs.gov/presidential-policy-directive-8-nationalpreparedness.

8 David C. Maurer, *National Preparedness: FEMA Has Made Progress, but Additional Steps Are Needed to Improve Grant Management and Assess Capabilities* (GAO 13–637T) (Washington, DC: U.S. Government Accountability Office, 2013), 10, http://www.gao.gov/assets/660/655392.pdf.

9 Government Accountability Office (GAO), *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System to Assess National Preparedness Capabilities* (GAO-11-51R) (Washington, DC: GAO, 2013), 31, http://www.gao.gov/assets/100/97160.pdf.

Post-Katrina Emergency Management Reform Act (PKEMRA),[10] returning most of the preparedness programs back to FEMA. The change in agency ownership of developed systems caused a breakdown in program management. For example, two programs affected by the transfer were the National Exercise Program and the comprehensive assessment system. While PKEMRA became effective in March of 2007, many of the staff positions within the new offices were not filled until November of 2008. Not only did the program lose a majority of its professional expertise, there was a significant gap in resources to manage the programs for well over a year.[11]

Third, in addition to the numerous organizational permutations, FEMA is in a constant state of flux. The agency's response to an increasing trend in the number of disasters and emergencies across the nation affects their ability to manage programs and shepherd new initiatives due to the strain on responding resources. The recent economic downturn also affected progress due to increased budgetary constraints at all levels of government, which can reduce staff and program funding. DHS's Office of the Inspector General indicated concern that FEMA does not have "sufficient staff focused on planning and preparedness efforts."[12]

Finally, DHS has faced numerous external challenges to implementing a performance management system. One such challenge is data reliability, which is dependent on self-reported preparedness data and assessments from state, local, and tribal jurisdictions. A related challenge is the development of standardized metrics. FEMA identified these various challenges and has thus far unsuccessfully attempted to mitigate them through development of standardized, web-based data collection tools.[13]

The ability to collect reliable data from state, local, and tribal entities is a challenge that must be resolved for a national preparedness performance management

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10 GAO, *FEMA Has Made Progress*, 20.

11 Ibid., 20–21.

12 Department of Homeland Security Office of Inspector General, *FEMA's Preparedness for the Next Catastrophic Disaster —An Update* (OIG-10-123) (Washington, DC: DHS September 2010), 55, https://www.oig.dhs.gov/assets/Mgmt/OIG_10-123_Sep10.pdf.

13 Government Accountability Office (GAO), *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System to Assess National Preparedness Capabilities* (GAO-11-51R) (Washington, DC: Government Accountability Office, 2013), 19, http://www.gao.gov/assets/100/97160.pdf.

system to reach fruition. Stakeholders adopting a congruent, comprehensive future assessment system are vital to the system's success. While there is no data indicating previously developed systems were difficult to use, the ease of use, value, and reliability of the system's output could potentially influence future federal resource allocation decisions. This concern could affect the perceived relative advantage of any new comprehensive assessment system. Complexity of the system will affect ease of use and therefore will likely be a significant concern to the stakeholders. There are limited staffing resources at the operational level, and any system requiring considerable effort and staff hours to meet the reporting requirements will likely meet considerable resistance.

This challenge was identified by FEMA in 2009 during congressional testimony. The testimony included the following: "While these new initiatives have bolstered our nation's level of preparedness, they have also created new federal requirements for state, territory, local, tribal and territorial emergency management and homeland security agencies. FEMA's key partners in emergency management and homeland security report that the existing volume of requests for information is placing a significant strain on their resources."[14]

Almost from its inception, pressure arose for the DHS to exhibit the value and outcomes attained from the now over $40 billion in various preparedness grant programs.[15] Due to the increased congressional scrutiny and lack of performance reporting, these grant programs have seen a reduction in allocation over the years. Resultantly, Congress limited preparedness grant funding in the 2011 through 2013 budget cycles; budget requests yielded a reduction of $875 million, $1.28 billion, and

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14 *Preparedness: What Has $29 Billion in Homeland Security Grants Bought and How Do We Know? Hearing Before the House Committee on Homeland Security, Subcommittee on Emergency Communications, Preparedness and Response* 9 (statement of Timothy Manning, Deputy Administrator, Protection and National Preparedness, FEMA, DHS), 111th Cong., 4, (2009), http-chsdemocrats.house.gov-SiteDocuments-20091027102505-12931, accessed May 18, 2013.

15 Department of Homeland Security , "DHS Announces Grant Allocations for Fiscal Year (FY) 2014 Preparedness Grants," July 25, 2014, http://www.dhs.gov/news/2014/07/25/dhs-announces-grant-allocations-fiscal-year-fy-2014-preparedness-grants.

$400 million respectively.[16] That FEMA could not demonstrate how federal grants enhanced disaster preparedness was a contributing factor in each fiscal year reduction.[17]

In testimony before the House Subcommittee on Emergency Preparedness, Response and Communications, Mark Ghilarducci, California state director for Emergency Services, testified to the impact of reduced funding:

> While the number of threats and hazards facing states and the nation has increased, federal support for state and local preparedness efforts has steadily decreased. Federal, non-disaster preparedness grant funding has dropped 75 percent since 2003. This reduction, combined with state and municipal budget challenges, significantly limited the ability of state and local governments to build new capabilities, sustain prior investments, and maintain forward momentum with preparedness efforts.[18]

The reduction in spending authority for SLTT jurisdictions since 2003 is significant and noteworthy.

Analysis of the DHS budget since 2008 reveals an interesting trend in funding. While the overall net budget for DHS increased approximately 11 percent over the seven-year period, the Homeland Security Grant Program (HSGP) (which currently includes three general funding categories: the State Homeland Security Grant Program [SHSP], the Urban Area Security Initiative [UASI], and Operation Stonegarden [OPSG]) decreased approximately 38 percent overall. Funding to SHSP and OPSG endured a 53 percent funding reduction while the UASI cities decreased 32 percent.[19] In general, the DHS funding portfolio has experienced a steady increase since it was founded, while the distribution to state and local jurisdictions has trended steadily downward.[20] Is this trend a result of the

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16 Mauer, *National Preparedness,* 9.

17 Mauer, *National Preparedness,* 9, Note 16.

18 National Governors Association, "Mark Ghilarducci, Testimony—A State Perspective on Assessing National Preparedness for Disasters," September 19, 2013, http://www.nga.org/cms/home/federal-relations/nga-testimony/hsps-testimony/col2-content/main-content-list/testimony--a-state-perspective-o.html.

19 Department of Homeland Security (DHS), *Budget-in-Brief Fiscal Years 2008–2014* (Washington, DC: DHS), http://www.dhs.gov/dhs-budget, accessed October 4, 2014.

20*Preparedness What Has $29 Billion in Homeland Security Grants Bought and How Do We Know?*, *Hearing Before the Subcommittee on Emergency Communications, Preparedness, and Response*, 111th Cong. (statement of Henry Cuellar, Chairman, Subcommittee on Emergency Communications, Preparedness and Response).

inability of SLTT jurisdictions to report on their preparedness efforts, a deliberate shift in priorities of the federal government, or a combination of the two?

A review of three seminal documents, the DHS Strategic Plan, the *Quadrennial Homeland Security Review* (QHSR) and current preparedness grant guidance, reveals that it is important for the whole community to be involved in national preparedness. The QHSR identifies the whole of community partnership as "individuals and families, including those with access and functional needs; businesses; faith-based and community organizations; nonprofit groups; schools and academia; media outlets; and all levels of government, including federal, state, local, tribal, and territorial partners."[21] Preparedness grant guidance indicates the HSGP "plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness Goal (the Goal) of a secure and resilient Nation. The building, sustainment, and delivery of these core capabilities are not exclusive to any single level of government, organization, or community, but rather, require the combined effort of the whole community."[22]

The latest DHS Strategic Plan and QHSR also emphasize the importance of partnerships within the whole community. DHS's strategic plan identifies preparedness grant programs as a central activity in building and sustaining national core capabilities,[23] while the QHSR defines three core principles for the Whole Community approach:

(1) understanding and meeting the actual needs of the Whole Community;

(2) engaging and empowering all parts of the community; and

(3) strengthening what works well in communities on a daily basis.[24]

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21 Department of Homeland Security (DHS), *The 2014 Quadrennial Homeland Security Review* (Washington, DC: Department of Homeland Security, 2014), 74, http://www.dhs.gov/sites/default/files/publications/qhsr/2014-QHSR.pdf.

22 Department of Homeland Security (DHS), *Funding Opportunity Announcement (FOA), FY 2014, Homeland Security Grant Program (HSGP)* (Washington, DC: Department of Homeland Security), 3, http://www.fema.gov/media-library/assets/documents/92397.

23 Department of Homeland Security (DHS), *Fiscal Years 2014–2018 Strategic Plan* (Washington, DC: Department of Homeland Security), 36, http://www.dhs.gov/sites/default/files/publications/FY14-18%20Strategic%20Plan.PDF.

24 DHS, *The 2014 Quadrennial Homeland Security Review*, 73.

As the core funding for these efforts continues to shift toward the federal government, is it most effective and efficient for the federal government to assume the primary role in engaging the Whole Community, or is that role better suited to regional, state, or local governments?

The Heritage Foundation believes ample capability should already exist, given the amount of resources expended to date, and therefore are calling for Congress to limit federal funding toward proven and demonstrated needs.[25] The Foundation argues that low-risk states, cities, and infrastructure entities "have received more than enough federal funds to meet whatever minimal terrorism threat they may face."[26] Another disapproving analysis of DHS and homeland security funding comes from two scholars, Mueller and Stewart, who argue DHS lacks proper justification for expenditures based on threat probabilities and risk, and therefore does not achieve a positive return on investment.[27]

The phrase "performance management system" is often associated with human resource departments and the evaluation and management of people. For the purpose of this research, "performance management system" is used in a generic sense to encompass all aspects of the DHS organizational enterprise, including processes, measurement, management, culture, planning, and its people. Many process improvement programs have gained prominence over the years in business to include quality, total quality management, six sigma, business process reengineering, theory of constraints, and lean to name just a few. All of these programs use various tools and techniques that provide a common approach and framework to improve organizational efficiencies and effectiveness. Performance management systems can chose to implement any one of

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25 *Are We Prepared?. Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of Matt A. Mayer, Visiting Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation).

26 *Are We Prepared?,. Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of Matt A. Mayer, Visiting Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation).

27 John Mueller and Mark G. Stewart, "Terror Security and Money: Balancing the Risks, Benefits, and Costs of Homeland Security," Annual Convention of the Midwest Political Science Association Chicago, IL, April 2011, http://politicalscience.osu.edu/faculty/jmueller//MID11TSM.PDF.

these frameworks or a hybrid of approaches that best meets their needs and goals. The aim of this research is not to identify the specific tools and techniques that should be applied to the homeland security enterprise to improve performance. Rather, some performance management concepts are explored to show the potential of what could be accomplished given the enterprise devotes greater focus and attention to the matter.

C.   RESEARCH QUESTIONS

The primary research question is this:

- What would a performance management model for use in state, local, tribal, or territorial (SLTT) jurisdictions look like?

The secondary research questions are as follows:

- What are the considerations and elements required for implementation?

- What would be the challenges and implementation issues for such a model?

During its 12-year history, a number of efforts for DHS to establish a viable performance measurement system have come and gone, leaving the organization unable to report the value of its programs to Congress. DHS's emergency management performance grant and homeland security grant programs are two critical funding sources to states and urban areas. These two grant programs are under continuous pressure to show value for the investment, and each fiscal year they are at risk for reduced funding allocations. Because all states and urban areas rely on these federal funds to build and sustain capability for local programs, the ability to document and report outcomes will advance the programs'—and the funding's—viability to congressional appropriators. If the programs' success can be shown, DHS can argue for sustained funding through a difficult fiscal environment, and potentially for additional or special funding to address an identified gap in critical capability.

Although 2013 was the first year DHS utilized both the State Preparedness Reports (SPR) and the state Threat Hazard Identification and Risk Assessments (THIRA)

to compile the Presidential Policy Directive-8 mandated *National Preparedness Report*,[28] ample reviews and critiques of the current performance management system already existed. One of the primary findings from the DHS Office of the Inspector General (OIG) was that many individual states lacked a comprehensive performance measurement system.[29]

As currently developed, the data provided by the SPR and THIRA offer input to the *National Preparedness Report* and are a key input to DHS' Annual Performance Report Priority Goal 3: Ensure Resilience to Disasters by Strengthening Disaster Preparedness and Response Capabilities.[30] The significant drawbacks to the current assessment and report structures are the subjective nature of the assessments via qualitative measures, and the self-assessment construct. Refining the processes, measures (questions), and reporting tools would garner statistically significant information and contribute to the national preparedness capabilities assessment.

As stated previously, one of the greatest challenges with current preparedness measurements is the lack of quantitative measures used to assess state and urban area programs' progress. Developing metrics that meet the appropriate data standards for specificity, measurability, reliability, and timeliness—and that provide the critical information leaders and managers need to set priorities and direction—is perhaps the most difficult undertaking in the performance measurement system. It may be too broad a scope to accomplish in the given time. To address this challenge, a sample of well-defined measurements should be developed as a guide for future researchers or program managers.

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28 FEMA, *National Preparedness Report* (Washington, DC: Department of Homeland Security, 2013), 2, http://www.fema.gov/media-library-data/20130726-1916-25045-0015/npr2013_final.pdf.

29 Department of Homeland Security Office of Inspector General, *Semiannual Report to the Congress: Prepare, Respond, and Recover, October 1, 2012 through March 31, 2013* (Washington, DC: Department of Homeland Security, 2013), 15, 17, 21.

30 Department of Homeland Security, *Annual Performance Report. Fiscal Years 2012–2014* (Washington, DC: Department of Homeland Security, 2013), 50.

D. HYPOTHESIS

A standardized performance management model can be successfully developed and implemented in SLTT jurisdictions that will inform executive decision-making across the homeland security enterprise and improve the overall effectiveness of preparedness activities through budget allocations. There are concerns, however, in realizing and sustaining the overall effort. The first concern is identifying valid, balanced, and relevant metrics that will provide reliable and actionable data. In tandem with this challenge is establishing the resources necessary to collect, analyze, and report the data. Implementation of a performance management system will likely require an initial investment of human capital as well as establishing training programs and providing technical assistance.

E. RESEARCH METHOD AND SCOPE

This research develops a conceptual model based on the identified shortfalls from current statutes and policies. A review is conducted of the policy and guidance directing federal agencies and all jurisdictions receiving federal aid to track and report performance metrics. In addition, prior attempts to satisfy the reporting requirements are analyzed. To begin the process of developing a performance management model, DHS and state policies, guidance, plans, and reports are reviewed to capture goals and requirements. Existing performance management models for organizations that conduct similar missions are evaluated for strengths and weaknesses as they apply to the homeland security organization.

Through this analysis, along with the application of process improvement theory and techniques, a generic data collection model shows the alignment of SLTT strategic goals and objectives and performance measures to federal goals and objectives. The model accounts for the unique aspects of individual jurisdictions; the priorities and focus areas of each are based on threats, capabilities, and vulnerabilities requiring distinctive measurements to capture the required data.

The goal of this research is to devise a performance management model that will serve SLTT jurisdictions in providing performance management information. In addition,

it endeavors to be flexible enough to address individual jurisdiction priorities while at the same time maintaining sufficient standardization, allowing the collected data to inform federal departments and agencies on progress and utilization of funds. This research effort serves as a starting point for the performance management system. Due to the complexity of the DHS mission and its many components, further research, analysis, and policy development will be required.

F.   SIGNIFICANCE OF RESEARCH

There are three underlying reasons for researching a construct to measure the performance of homeland security programs. Foremost is the gain in efficiencies and effectiveness in SLTT homeland security programs through the collection and analysis of improved data and metrics. Efficiency and effectiveness undergird actual system performance and serve as the basis for measurement. The research will also provide a means for program directors to evaluate programmatic outcomes and measure progress toward strategic objectives. Additionally, the use of data can promote a more consistent application of policy and enhance transparency in resource allocation decisions. An established performance measurement framework will facilitate communication with all of the stakeholders, including state legislators and administrations, headquarters DHS, and Congress.

There is increased recent scrutiny over how the SLTT jurisdictions expend their allocated funds.[31] As previously stated, Congress has reduced the amount of federal grant dollars to SLTT programs due, in part, to DHS's inability to report on the value created by the expenditure of funds. Congress may well decide to shift the fiscal burden of preparedness programs to state and local programs; however, that decision should not come as a result of an inability to report progress on established goals. A standardized approach to SLTT performance measurement could provide DHS a comparative analysis and reporting tool to inform Congress.

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31 *Preparedness What Has $29 Billion in Homeland Security Grants Bought and How Do We Know?,*
Hearing Before the Subcommittee on Emergency Communications, Preparedness, and Response, 111th
Cong. (statement of Henry Cuellar, Chairman, Subcommittee on Emergency Communications,
Preparedness and Response).

A performance management system can also be used by both state and federal program executives to justify program expenditures and inform critical resource allocation decisions to mitigate risks and fill resource gaps. Clear performance data will promote consistent application of policy and enhance transparency in resource allocation decisions. Moreover, an established performance measurement framework will facilitate communication with all stakeholders, including state legislators and administrations, headquarters DHS, and Congress. SLTT entities' inability to track performance indicators is a systemic problem. As the DHS Office of Inspector General noted in its 2013 semi-annual report, "Improvements are needed in the following areas: developing a comprehensive strategy with measurable objectives, developing a performance measurement system to assess emergency preparedness, and improve the performance measurement process."[32]

There are many potential benefits to incorporating a performance measurement framework in SLTT homeland security programs. Data derived from the framework will facilitate decision-making at all levels of management and will provide timely feedback on the efficacy of those decisions. Data also enables accountability; managers will gain insight into program processes and organizational compliance with policy, guidance, and directives. Metrics also serve as a tool to influence behavior and place direct attention on organizational priorities.

In spite of all the challenges, FEMA states they can measure SLTT preparedness capability improvements to understand how the jurisdictions are meeting the National Preparedness Goal. FEMA asserts this is accomplished by comparing jurisdiction's self-identified capability gaps, via their annual Threat Hazard Identification and Risk Assessment and State Preparedness Reports, with their planned investment strategy outlined in the annual preparedness grant application package.[33]

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[32] Department of Homeland Security Office of the Inspector General, *Semi-Annual Report to the Congress*.

[33] *Are We Prepared? Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of statement of Timothy Manning, Deputy Administrator, FEMA for Protection and National Preparedness).

In testimony before the Senate Emergency Management Subcommittee, FEMA provided the following appraisal of the nation's current preparedness:

> We are more secure and better prepared than we have been at any time in our history; we plan better, organize better, equip better, train better, and exercise better, resulting in improved national preparedness and resilience; we have built and enhanced capabilities by acquiring needed equipment, funding training opportunities, developing preparedness and response plans, exercising and building relationships across jurisdictional lines.[34]

While all of these claims may be true, there is no understanding of how much better prepared the nation is, how much capability is required, and how much capability was developed over the past ten years. Although the capability to respond to a local disaster involves much more than the possession of assets, an audit of the assets acquired through federal grants has never been accomplished;[35] therefore, an accurate evaluation of acquired capability can never be accomplished. Since 2009, the U.S. Government Accountability Office (GAO) has recommended DHS develop "clear, objective, and quantifiable capability requirements and performance measures."[36] DHS has initiated many attempts to establish an assessment system and implemented new reporting requirements to meet the goal of assessing national preparedness, but has yet to quantify the assessment through the development of performance measures. This inquiry explores and analyzes the various systems and processes put in place by DHS and attempts to determine the root causes for failure, in order to determine system performance adequately.

G.   CHAPTER ORGANIZATION

Chapter II provides a review of the related literature and focuses on three main topics: the mandated requirements and historical efforts of DHS to implement a

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34 Ibid.

35 *Are We Prepared?. Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of Matt A. Mayer, Visiting Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation.)

36 Maurer, *National Preparedness*, 8.

performance management system, the potential value a system can provide an organization, and the critical elements to consider in developing such a system. Chapter III takes a detailed look at the problem space and analyzes the laws and directives that dictate performance management requirements. It also reviews DHS' attempts to implement performance management in their programs and identify the specific challenges that hinder its development. Finally, Chapter IV provides potential solutions to the identified challenges by developing a conceptual model that considers policy, roles and responsibilities, training, staffing, and reporting.

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II.   LITERATURE REVIEW

This review identifies relevant sources concerning the requirement for and value of a performance measurement system within DHS. The sources fall into the following categories: the requirement for a performance management system; the value of a performance management system, a history of DHS initiatives to meet the requirement; and the elements of a successful performance management system.

Overall, there are numerous resources from congressional testimony, Government Accountability Office (GAO) reports, and other think tanks describing the requirement and need for a performance management system. There are also many resources providing guidance and theory in performance measurement systems, performance-based decision-making, metrics and measurement, and strategic planning. Finally, sources provide a reasonable account of the systems implemented by DHS over the past ten years, and their shortcomings. Detailed information regarding system capabilities and user interface, however, was not readily available.

A.   THE REQUIREMENT FOR A PERFORMANCE MANAGEMENT SYSTEM

Since the publication of HSPD-8 in 2003, public law has required government to improve efficiency and effectiveness of their programs and operations. DHS has included these goals into their policy directives and struggled to implement and achieve them. The GAO has provided substantial documentation and reporting on these DHS deficiencies through reports (09-369, 09-651) and congressional briefs (11-51R) and testimony (13-637T). These documents are more fully examined in Chapter III. The DHS Office of the Inspector General (OIG) has also reported on and highlighted DHS's difficulty to develop a performance management system. States and designated urban areas have received over $40 billion in DHS grant funding to develop preparedness and response capabilities. To better account for this spending, Public Law 110-53,[37] which took effect in 2007,

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[37] *Implementing Recommendations of the 9/11 Commission Act of 2007*, Pub. L. No. 110–53, 121 Stat. 288–289 (2007).

directed an audit of every state's federal preparedness grant funding program. The DHS OIG provided testimony before Congress in June 2013 that highlighted the lack of strategic planning and measurable goals by a significant number of states.[38] Although the DHS OIG did not audit all programs, the sample of audits suggests states generally do not have an adequate system in place to measure and report on preparedness performance indicators.

Think tanks such as The Cato Institute and RAND Corporation have also weighed in on DHS's challenges to assess national preparedness. While RAND acknowledges the need for an assessment system, it also highlights the limits of measuring inputs to the disaster response system as a means of indicating predictable outcomes.[39] RAND points out that it is difficult to assess human response systems with processes that are impossible to control and measure in a standardized way.[40] In an opposing view, The Cato Institute argues that more than enough money has already been obligated to build capability in some homeland security endeavors, and it is now time to prioritize federal resources to the most critical programs and cut funding to those programs that should, by now, be mature.[41]

B. THE VALUE OF A PERFORMANCE MANAGEMENT SYSTEM

While the Government Performance Results and Modernization Act (GPRA-MA) requires an assessment and annual performance report from most federal agencies, DHS's performance is especially important. Director of the RAND Homeland and Security Defense Center Henry Willis, in his congressional testimony, outlines three aspects of the

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38 *Are We Prepared?*, (statement of Anne L. Richards, Assistant Inspector General for Audits, DHS).

39 Brian A. Jackson, The Problem of Measuring Emergency Preparedness: The Need for Assessing Response Reliability as Part of Homeland Security Planning (RAND Document No. OP-234-RC) (Santa Monica, CA: RAND, 2008), 11, http://www.rand.org/content/dam/rand/pubs/occasional_papers/2008/RAND_OP234.pdf.

40 Brian A. Jackson, The Problem of Measuring Emergency Preparedness: The Need for Assessing Response Reliability as Part of Homeland Security Planning (RAND Document No. OP-234-RC) (Santa Monica, CA: RAND, 2008), 11, http://www.rand.org/content/dam/rand/pubs/occasional_papers/2008/RAND_OP234.pdf.

41 David Rittgers, Abolish the Department of Homeland Security (Policy Analysis #683), (Washington, DC: Cato Institute, 2011), 8–9, www.cato.org/publications/policy-analysis/abolish-department-homeland-security-2011-09-08.

DHS mission that are critical to national security: 1) deciphering poorly understood threats, 2) mitigating the national consequences of these threats, and 3) developing an integrated approach to navigate the complexity of many DHS and external agencies.[42]

Given the mandate to develop and put into operation a performance management system, the logical question that follows is: What will the agency gain from implementation? Resource constrained executives and managers will struggle to invest resources to a system when they do not know if return in savings or additional capability are worth the investment; "an expensive performance management system, even if it accomplishes something, may not accomplish enough to justify the expense."[43]

Independent research in three separate studies by Hendricks and Singhal; Powell, Eaton and Jarrell; and Leuschner all found evidence supporting improvements in economic and operational performance from the implementation of performance management systems in both public and private organizations.[44] Eaton and Jarrell's research indicated organizations with a highly developed or advanced system implementation attained even stronger performance levels.[45] Hendricks and Singhal suggest that organizations implementing performance management systems at a level to receive award recognition also outperform their competition.[46] This is supported by the

42 Henry H. Willis, Strengthening Strategic Planning and Management at DHS (RAND Testimony No. CT-387) (Santa Monica, CA: RAND, 2013), 4, http://www.rand.org/content/dam/rand/pubs/testimonies/CT300/CT387/RAND_CT387.pdf.

43 James J. Heckman, Carolyn Heinrich, and Jeffrey Smith, The Performance of Performance Standards (Working Paper 9002) (Cambridge, MA: The National Bureau of Economic Research, 2002),11, http://www.nber.org/papers/w9002.

44 Kevin B. Hendricks and Vinod R. Singhal, "Does Implementing an Effective TQM Program Actually Improve Operating Performance? Empirical Evidence from Firms That Have Won Quality Awards," *Management Science*, 43 (September 1997), 1271, http://www.jstor.org/stable/2634637; Thomas C. Powell, "Total Quality Management as Competitive Advantage: A Review and Empirical Study," Strategic Management Journal, Vol. 16, No. 1 (Jan 1995), 29, http://links.jstor.org/sici?sici=0143-2095%28199501%2916%3A1%3C15%3ATQMACA%3E2.0.CO%3B2-5; George S. Eaton and Sherry L. Jarrell, "The Effects of Total Quality Management on Corporate Performance: An Empirical Investigation," The Journal of Business, Vol. 71, No. 2 (April 1998), 298, http://www.jstor.org/stable/10.1086/209744; Kristin J. Leuschner, Are Performance-based Accountability Systems Effective?: Evidence From Five Sectors (RAND Research Brief No. RB-9549) (Santa Monica, CA: RAND Education, 2010), 2, http://www.rand.org/content/dam/rand/pubs/research_briefs/2010/RAND_RB9549.pdf.

45 Eaton and Jarrell, "The Effects of Total Quality Management," 298.

46 Hendricks and Singhal, "Does Implementing an Effective TQM Program Actually Improve Operating Performance?," 1271.

Bureaus of Economic Analysis and Labor Statistics, which shows organizations earning two Baldrige Awards for performance excellence demonstrate median growth in jobs nearly 20 times greater than matched industries and time periods.[47] In addition, these organizations have seen a 92.6 percent increase in median revenue growth and a 67 percent median growth in number of operational locations.[48]

Eaton and Jarrell correlated long-term organizational benefits to an advanced state of performance improvement programs, suggesting "it takes time for an organization to reap the benefits of implementation."[49] Hendricks and Singhal's research also indicates there are no negative performance indicators during the early implementation phase, despite the costs of program implementation, due to the offset of short-term benefits.[50]

While research suggests organizations can benefit from implementing performance improvement programs, findings also illuminate the challenges to successful implementation. Powell's research on the value of performance improvement programs found the results are not consistent for all implementers,[51] and it is more challenging for large organizations to achieve performance improvement.[52] Leuschner's study suggests that systems' specific design elements are critical to implementing the program successfully.[53] These design elements are examined more thoroughly in the next section.

C.   ESSENTIAL ELEMENTS OF A SUCCESSFUL PERFORMANCE MANAGEMENT SYSTEM

A review of the literature highlighted six common, overarching elements critical to successfully implementing a performance management system. The six themes are: management, measurement, planning, communication, incentives, and employee

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47 Baldrige Performance Excellence Program, "The Baldrige Criteria 101," http://www.nist.gov/baldrige/publications/upload/The-Baldrige-Criteria-101.docx, Accessed June 6, 2015.

48 "The Baldrige Criteria 101."

49 Eaton and Jarrell, "The Effects of Total Quality Management," 298.

50 Hendricks and Singhal, "Does Implementing an Effective TQM Program Actually Improve Operating Performance?," 1271.

51 Powell, "Total Quality Management," 29.

52 Ibid., 26.

53 Leuschner, *Are Performance-based Accountability Systems Effective?*, 2.

involvement. These elements are addressed individually in this section, but most of them are interrelated, if not mutually supporting.

1.   Management

Of the six themes, management is perhaps the most critical. Organizational leaders have much influence within the remaining five elements. They directly impact priorities, and play a key role in holding organizational departments accountable to the improvement process. The independent research of Powell; Rosett and Rosett; and Bourne Neely, Platts, and Mills all found management's role to be a central factor in the success of performance improvement initiatives.[54]

Light's research identified poor management execution as a primary root cause of government failures,[55] while Moynihan and Lavertu indicate management's lack of involvement and use of performance information as significant contributors.[56] Eaton and Jarrell provided a strong correlation between management methods and organizational performance improvement,[57] while Powell's research states executive commitment is more important to success than the various tools and techniques of an improvement program, such as benchmarking, training, and improved measurement.[58] (Tools and techniques will be described in more detail in Chapter IV.)

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54 Powell, "Total Quality Management as Competitive Advantage, 29; James G. Rosett and Richard N. Rosett, Characteristic of TQM: Evidence From the RIT/*USA Today* Quality Cup Competition (Working Paper 7241) (Cambridge, MA: The National Bureau of Economic Research, 1999),14, http://www.nber.org/papers/w7241; Mike Bourne et al., "The Success and Failure of Performance Measurement Initiatives: Perceptions of Participating Managers," *International Journal of Operations & Production Management* 22 (2002): 1303, doi: 10.1108/01443570210450329.

55 Paul C. Light, *A Cascade of Failures: Why Government Fails and How to Stop It*, (Washington, DC: Brookings Institute, 2014), 8, http://www.brookings.edu/research/papers/2014/07/14-cascade-failures-why-government-fails-light.

56 Donald Moynihan and Stephane Lavertu, *Do Performance Reforms Change How Federal Managers Manage* (Washington, DC: Brookings Institute, 2014), 8, http://www.brookings.edu/research/papers/2012/10/11-management-moynihan.

57 Eaton and Jarrell, "The Effects of Total Quality Management on Corporate Performance," 298.

58 Powell, "Total Quality Management as Competitive Advantage," 29.

2. Measurement

Metrics development is a critical component in assessing performance, and is perhaps one of the most challenging elements to implement effectively. Pyzdek describes measurement as "the assignment of numbers to observed phenomena according to certain rules."[59] These "rules" are important to ensure the numbers have relevancy and meaning, which will help managers conduct analysis and make decisions. Pyzdek identifies two fundamental properties that guide the collection of metrics: validity and reliability. Data validity ensures the "item measures what is intended" and reliability "ensures a measurement orders individual responses in the same way."[60]

Asch et al. describe the ideal measurement system as one containing elements from three categories: structure, process, and outcomes (though outcome measures in the area of preparedness are rare and difficult to ascertain).[61] Structural measures have the advantage of being most responsive to policy changes but perhaps least related to outcomes.[62] Process measures are most responsive to quality improvement efforts and are more directly related to outcomes.[63] Heckman, Heinrich, and Smith describe a fourth category of measurement—impact. Performance measures based on impacts are likely to be more controversial, depending on the data collection method, and are more costly to produce than outcome measures due to the additional time and analysis involved.[64]

The GAO identified the "long-standing challenge of measuring and collecting accurate performance data"[65] as the greatest shortcoming agencies face in assessing and reporting their GPRA-MA-mandated performance progress. Bourne et al. identified a set

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59 Thomas Pyzdek, *The Six Sigma Handbook, A Complete Guide for Green Belts, Black Belts, and Managers at All Levels* (New York: McGraw-Hill, 2003), 277.

60 Ibid., 280.

61 Stephen M. Asch et al., "A Review of Instruments Assessing Public Health Preparedness," Public Health Reports, Vol. 120 (September–October 2005), 535, http://www.ncbi.nlm.nih.gov/pmc/articles/ PMC1497752/pdf/16224986.pdf, accessed April 7, 2015.

62 Asch et al., "A Review of Instruments Assessing Public Health Preparedness," 535.

63 Ibid., 539.

64 Heckman, Heinrich, and Smith, *The Performance of Performance Standards,* 11.

65 Government Accountability Office (GAO), *Managing for Results: Agencies Should More Fully Develop Priority Goals under the GPRA Modernization Act* (GAO-13-174) (Washington, DC: U.S. Government Accountability Office, 2013), Report Overview, http://www.gao.gov/assets/660/654039.pdf.

of key challenges organizations face in developing a measurement system: poorly defined metrics, the lack of a highly developed information system, too many measures diluting the overall impact, and the need to collect more quantifiable versus qualitative results.[66] Additionally, Leuschner asserts that in order to collect performance data successfully, the associated metrics must be unambiguous and easy to observe.[67]

Another challenge with developing actionable measures is the time lag between the observed measure and subsequent analysis, and a manager or leader's need to make short-term decisions.[68] Therefore, "if performance standards are to be put in place that motivate efficiency in the short-term, the performance management system needs to determine which short run measures are strongly related to long term efficiency criteria."[69] The conflict of collecting short-term management measures for expedient decision-making, while also trying to measure long-term progress of strategic goals is evident in DHS. Smith's research reveals a disconnect between the GPRA-MA mandate and DHS's solution, resulting in a bi-furcated measurement practice. DHS collects one set of short-tern, politically driven measures to satisfy GPRA-MA requirements, and a second set aligned with its own internal agency measures.[70]

A good measure should include clear standards, with the required data elements explicitly detailed.[71] Davis et al. found that standardized measures are essential for assessing state and local organizations' preparedness levels.[72] Applying these standards to SLTT jurisdictions receiving federal grant program dollars can encourage and produce

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66 Bourne, Neely, Platts, and Mills, "The Success and Failure of Performance Measurement Initiatives, 1289.

67 Leuschner, *Are Performance-based Accountability Systems Effective*, 2.

68 Heckman, Heinrich, and Smith, *The Performance of Performance Standards*, 11.

69 Ibid., 36.

70 Teresa M. Smith, "Instilling a Culture of Accountability at the Department of Homeland Security (DHS): Leveraging the Government Performance and Results Modernization Act (GPRA-MA)" (master's thesis, Naval Postgraduate School, 2013), 213–214.

71 Asch et al., "A Review of Instruments Assessing Public Health Preparedness," 535, 539.

72 Lois M. Davis, Louis T. Mariano, Jennifer E. Pace, Sarah K. Cotton, and Paul Steinberg, *Combating Terrorism: How Prepared Are State and Local Response Organizations?* (Santa Monica, CA: RAND, 2006), 68, http://www.rand.org/pubs/monographs/MG309.html.

greater accountability in the use of those funds.[73] Without measurement standards, organizations attempt to fill duplicate information requests, which results in wasteful activity.[74] In addition, inadequate standards can lead to poor investments that fail to improve outcomes or build capabilities to meet current and future needs.[75] While preparedness standards are considered the backbone of accountability—which should lead to institutionalized and sustained preparedness—Canada's research also warned that rigid standards can inhibit SLTT jurisdictions ability to find approaches that best meet the needs of each community based on unique geography, demographics, organizational structure and resources.[76]

The abundance of available SLTT performance measures collected through State Preparedness Reports are predisposed to checklist items, yes or no questions, or Likert Scale assessment questions that use a subjective, self-reported three- or five-tier ranking scale. While there is value in collecting nominal or attribute data through these survey instruments, these data are considered the weakest form of measurement.[77]

Jackson's research shows that self-collection is a common means of data collection, and may be necessary to gain expert opinions.[78] According to an *American Journal of Public Health* article, however, this technique yields biased outcomes with "ambiguous and uncertain preparedness goals, a lack of agreement about what the measures should aim at and how they should be interpreted, and a weak system of accountability for producing results."[79] The article goes on to state, "Measures often vary considerably across agencies and shift dramatically from year to year, leaving state and

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73 Ben Canada, *Homeland Security: Standards for State and Local Preparedness* (CRS Report No. RL31680) (Washington, DC: Congressional Research Service, 2003), 1, http://www.nfpa.org/~/media/files /safety-information/homeland-security/crsreport.pdf?la=en.

74 Asch et al., "A Review of Instruments Assessing Public Health Preparedness," 540.

75 Ibid.

76 Canada, *Homeland Security*, 10.

77 Pyzdek, *The Six Sigma Handbook*, 279–280.

78 Jackson, *The Problem of Measuring Emergency Preparedness*, 22.

79 Christopher Nelson, Nicole Lurie, Jeffrey Wasserman, , and Sarah Zakowski, "Conceptualizing and Defining Public Health Emergency Preparedness," *American Journal of Public Health* (2007): 97. doi: 10.2105/AJPH.2007.114496.

local health officials, businesses, nonprofits, and citizens confused and perplexed by a maze of overlapping and sometimes contradictory requirements, checklists, and ideas about what constitutes preparedness."[80]

3.   Strategic Planning

The strategic planning process requires a focused and diligent effort to identify priorities and develop action plans that shape the nature and direction of an entity's activities. But perhaps the most concise definition of strategy is "a plan for success."[81] Bryson concludes that "strategic thought **and action** [emphasis added] are increasingly important to the continued viability and effectiveness of governments and is purposed to help organizations respond effectively to new situations."[82]

Organizational strategy is formed as a result of a deliberate planning process, and the resulting strategy defines how the organization intends to achieve its established vision. The strategy determines the best way to use available resources to achieve the planned goals or outcomes,[83] and should contain few competing interests or requirements.[84] DHS OIG frequently identifies strategic planning as a systemic deficiency throughout the SLTT jurisdictions; it has found many states lack an existing or current strategic plan. But, more importantly, most plans it did find lacked sufficient goals and objectives to drive management decision-making.[85]

Bourne et al. identified several common shortfalls of strategic planning efforts that contribute to the failure of performance improvement initiatives:

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80 Ibid.

81 Patrick Lencioni, *The Advantage: Why Organizational Health Trumps Everything Else in Business* (San Francisco: Jossey-Bass, 2012), 107.

82 John M. Bryson, "A Strategic Planning Process for Public and Non-profit Organizations," *Long Range Planning* 21 (February 1988): 74, http://docushare.usc.edu/docushare/dsweb/Get/ Document-8775/, Accessed April 8, 2015.

83 David Parmenter, *Key Performance Indicators: Developing, Implementing, and Using Winning KPIs* (Hoboken, NJ: John Wiley & Sons, 2010), 38–39.

84 Leuschner, *Are Performance-based Accountability Systems Effective*, 2.

85 Thirteen states were evaluated in their management of homeland security grant programs in FY14. http://www.oig.dhs.gov/index.php?option=com_content&view=article&id=210&Itemid=198.

- Lack of leadership and resistance to change

- Unwillingness to commit required time and resources

- Vision and strategy were not actionable

- Strategy was not linked to resource allocation

- Strategy was not linked to department, team, and individual goals (alignment)

- Goals were negotiated rather than based on stakeholder requirements

- Strategic plans are central to all organizational activities and involve all employees. The shortfalls identified by Bourne et al. are traits that contribute to the onset of the strategic plan's failure. If mid-level managers and staff fail to see a connection between their individual or departmental efforts and the organizational strategy, there will be no incentive to meet the identified goals and objectives within the strategy.[86]

4.   Incentives

Staff motivation is important if management wishes to incorporate a performance management system. Performance measures need to provide value to organizational staff as well as the program managers, either through process value or through an incentive mechanism that works. Performance measures can motivate improved performance by simplifying processes and procedures of routine staff functions, or through a system of linked rewards, benefits, or penalties.[87]

Incentives should apply to individuals who or organizations that have control over the relevant inputs and processes, and should be meaningful to those being incentivized.[88] The practice of tying rewards to accurately measurable performance or management, however, is rare.[89] Metzenbaum's research shows there is a correlation between the size of rewards or incentives and the staff's willingness to accept or embrace

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86 Bourne, Neely, Platts, and Mills, "The Success and Failure of Performance Measurement Initiatives," 1289.

87 Shelley Metzenbaum, *Making Measurement Matter: The Challenge and Promise of Building a Performance-Focused Environmental Protection System* (CPM Report 98–2) (Washington, DC: The Brookings Institution, 1998), 26, http://www.brookings.edu/~/media/research/files/reports/1998/10/02-environment-metzenbaum/metzenbaum.pdf.

88 Leuschner, *Are Performance-based Accountability Systems Effective?*, 2.

89 Light, *A Cascade of Failures*, 24.

the system.[90] Poorly designed incentives can give rise to unanticipated and undesired consequences. Too often, managers rely on the best available or easiest measure to collect instead of the best measure to determine performance.[91] This can result in faulty analysis and ill-advised incentives.

5.   Communication

Powell's research found an "open organization" is critical to determine performance improvement initiatives' successes or failures.[92] Openness requires a free-flowing dialogue between management, staff, and stakeholders. Light's research shows that organizational missions that are not communicated and embraced can be easily undermined by rank corruption and unethical conduct; clearly defined missions that are embraced across the organization, however, can be effectively monitored and corrected through performance measurement and management.[93]

Other research indicates organizational goals should be widely shared among all stakeholders.[94] Strategic communications can reinforce the organization's vision and create an environment in which employees are guided by the firm's broader objectives. Additionally, a well-articulated vision that includes a focus on customer satisfaction is a key element of a good communication strategy.[95]

6.   Culture

Organizational culture plays a strong role in the successful implementation and execution of a performance management system. Research by Vest and Gamm highlights two essential elements: a wholesale change in business practices and a fundamental change in culture. "The inability of many organizations to ensure transformation along

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90 Shelley Metzenbaum, *Making Measurement Matter: The Challenge and Promise of Building a Performance-Focused Environmental Protection System* (CPM Report 98–2) (Washington, DC: The Brookings Institution, 1998), 26, http://www.brookings.edu/~/media/research/files/reports/1998/10/02-environment-metzenbaum/metzenbaum.pdf.

91 Leuschner, *Are Performance-based Accountability Systems Effective?*, 3.

92 Powell, "Total Quality Management," 29.

93 Light, *A Cascade of Failures*, 14.

94 Leuschner, *Are Performance-based Accountability Systems Effective*?, 2.

95 Rosett and Rosett, Characteristic of TQM, 33.

both these dimension *[sic]* may explain a number of previous failings of lauded [performance improvement] approaches to be viewed by employees and staff as anything different than a passing management fad."[96] Likewise, Moynihan and Lavertu's research for the Brookings Institute found government-wide reform efforts are contingent upon bureaucratic behavior, which is difficult for reformers to control and observe, and ultimately results in limited successful outcomes.[97]

Perhaps most important in the culture change is the deliberate focus on using the performance management system to drive improved performance through data-informed decisions.[98] Asch et al. found, in order to achieve results in the process, a culture of accountability must be clearly identified in the performance management system. If performance measures are to have any impact on changing an organization's culture, it must be clear who is responsible for implementing the changes implied by the measure.[99] Moynihan and Lavertu's research showed the ability to link measures to actions may depend on the knowledge and skills of the person or team running a program.[100] Training and critical thinking skills, in turn, can help managers interpret and analyze data.[101] This is also supported by Rosett and Rosett's research, which shows that those who implement a performance management system should have substantial training in scientific reasoning and should understand how to satisfy their customers. In addition, to facilitate process improvement efforts, employees may need some cross-training to become familiar with processes directly related to their functions.[102] This training should include indoctrination to the organization's vision.[103] These findings are also evident in

96 Joshua R. Vest and Larry D. Gamm, "A Critical Review of the Research Literature on Six Sigma, Lean and StuderGroup's Hardwiring Excellence in the United States: The Need to Demonstrate and Communicate the Effectiveness of Transformation Strategies in Healthcare," *Implementation Science* 4, (2009). doi:10.1186/1748-5908-4-35.

97 Moynihan and Lavertu, *Do Performance Reforms Change How Federal Managers Manage?*, 3.

98 Smith, "Instilling a Culture of Accountability at the Department of Homeland Security," 202.

99 Asch et al., "A Review of Instruments Assessing Public Health Preparedness," 535, 539.

100 Moynihan and Lavertu, Do Performance Reforms Change How Federal Managers Manage?, 8.

101 Ibid.

102 Rosett and Rosett, *Characteristic of TQM*, 26.

103 Ibid., 33.

Donnelly's thesis, which found the self-assessment system used by DHS to evaluate SLTT jurisdictions lacks methodological validity and yields imprecise measurements.[104]

D.   HISTORY OF DHS'S RESPONSE TO THE PERFORMANCE MANDATE

DHS has undertaken a number of initiatives to validate expenditures on the various emergency preparedness grant programs. Among these are the Capability Assessment for Readiness (1997), the Gap Analysis Program (2007), the *State Preparedness Report* (SPR) (2008), the Pilot Capability Assessment (2008), the Cost-to-Capability Initiative (2008), National Incident Management System Compliance Assistance Support Tool (NIMSCAST) (2012-2013), The National Preparedness System (NPS) (2006–2008), and the Threat Hazard Identification and Risk Assessment (THIRA) (2012). Today, the SPR and THIRA remain the core data collection tools for DHS to assess national preparedness.

The GAO, however, notes that because "clear, objective, and quantifiable capability requirements and performance measures" have yet to be developed, DHS's efforts to assess national preparedness will continue to falter.[105] Among the critiques is the flexibility afforded to states to develop individual requirements and standards, preventing analysis that could identify differences and capability gaps.[106]

In addition to the systems DHS developed and implemented over the years, there are a number of policy documents that guide DHS performance measurement. Presidential Policy Directive (PPD)-8 is the seminal document for national preparedness, which directed the development of the National Preparedness Goal, the National Preparedness System, and the *National Preparedness Report*.[107] The DHS Strategic Plan, another key document, outlines the Department's mission, vision, goals and

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104 John A. Donnelly, Jr., "Effect of Assessment Processes on Measuring Homeland Security Capability," (master's thesis, Naval Postgraduate School, 2007).

105 David C. Maurer, *National Preparedness: FEMA Has Made Progress, but Additional Steps Are Needed to Improve Grant Management and Assess Capabilities* (GAO 13–637T) (Washington, DC: U.S. Government Accountability Office, 2013), 10, http://www.gao.gov/assets/660/655392.pdf.

106 Maurer, *National Preparedness*, highlights.

107 Obama, Presidential Policy Directive 8.

objectives.[108] According to the Strategic Plan, state, tribal, territorial, and local entities will play a significant role in four of the five core mission areas: "preventing terrorism and enhancing security, secure and manage our borders, safeguard and secure cyberspace, and ensuring resilience to disasters."[109] The identified goals and objectives within the DHS Strategic Plan will serve as the basis for the development of performance metrics.

In compliance with the GPRA, Homeland Security Presidential Directive-8 directed DHS to "establish measurable readiness priorities and targets to include readiness metrics."[110] Additionally, it required "standards for preparedness assessments and a system for assessing the nation's overall preparedness for responding to major events."[111] Public Law 109–295 Section 649, also known as the Post-Katrina Emergency Management Reform Act (PKEMRA), included requirements to "establish a comprehensive system to assess, on an ongoing basis, the Nation's prevention capabilities and overall preparedness, including operational readiness."[112] PKEMRA also requires the system to assess all related plans and strategies using "clear and quantifiable performance metrics, measures, and outcomes."[113] The assessments outcomes must be reported annually and will include, among other requirements, the overall results as well as the resources required to meet jurisdictional preparedness goals and the estimated costs.[114]

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108 Department of Homeland Security, *Fiscal Years 2014–2018 Strategic Plan*.

109 Ibid.

110 George W. Bush, *Homeland Security Presidential Directive-8, Directive on National Preparedness* (Washington, DC: The White House, 2003), 1823, http://www.gpo.gov/fdsys/pkg/WCPD-2003-12-22/pdf/WCPD-2003-12-22-Pg1822.pdf.

111 Ibid.

112 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1428 (2006).

113 Department of Homeland Security Appropriations Act of 2007.

114 Department of Homeland Security Appropriations Act of 2007.

E.   CONCLUSION

Over the past ten years, DHS has implemented multiple programs designed to capture preparedness data. Those programs can be analyzed and compiled into a national assessment report as required by law.

In 2015, the *National Preparedness Report* data consists of the following sources (reported as more than 450 total)[115]:

- Open source materials

- Solicitation for data from federal agencies

- Federal agency, department, and coordination group engagement activities

- State Preparedness Reports and Threat Hazard Identification and Risk Assessments

- Applying exercise, funding, and assessment criteria

- Collaboration with 143 stakeholders

Although the report contains many local success stories and anecdotal information from opinion surveys, it does not identify goals with measurable objectives or charts showing rate of progress. There is also little connectivity to other DHS strategic plans that would enable them to produce consistently reliable data. Measures should be focused on the critical few to ensure that staff members are not overwhelmed with data collection.

Communication, incentives, and culture are the final three factors essential to establishing a successful performance management system. Management plays a key role in each of these areas as well. Managers and leaders at all levels must ensure the organizational vision, priorities, goals, and objectives are widely shared across the organization. This will promote a unified effort among personnel, allowing them to work toward the vision. Managers can also ensure staff are rewarded for meeting or exceeding interim and long-term goals. Although such a reward system can encourage unintended behavior and outcomes if not administered properly, perhaps the greatest reward is a

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115 FEMA, *National Preparedness Report*, 1.

performance management system that provides value to the staff and management, and makes individual work tasks less complicated and more productive.

Finally, the previously discussed factors discussed—a committed management, effective measures, robust strategic planning, valued incentives, and widely shared communications—are necessary for an organizational culture focused on performance results. Managers can further affect an organization's culture by ensuring everyone is held accountable for performance results, while also giving the staff the necessary training to use the performance management system successfully. Perhaps the greatest cultural change in the organization will be managers' use of data and information to make informed decisions at all levels.

It is evident by the review of the literature that these factors can facilitate the implementation of a performance management system. An organization, however, must be "all in," ensuring all the identified factors for success are aligned and integrated and not succumb to the common check box approach of planning, measuring, and reporting results as independent and isolated activities. It will require strong leadership, persistence, and time to change organizational culture. There is still much work left to do in order for DHS to comply with the GPRA-MA's intent.

A review of the literature also found no significant examples of highly successful performance management systems within the federal government, although research indicates the implementation of such a system can yield results. But what are the elements of a performance management system that could produce the expected results? Research indicates the most important factor in developing a successful performance management system is management's role and interaction with the entire process. Mangers at all levels must be fully committed to the effort, from the allocation of resources to the daily use of performance data to inform decisions. Additionally, managers play an essential role in each of the five critical factors for successful implementation: strategic planning, measurement, incentives, communication, and culture.

Managers are integral to setting the organization's vision, and for establishing how to achieve it. They must set an action plan that includes organizationally aligned goals and objectives, and they are accountable for allocating proper resources for achieving these goals and maintaining the performance management system once it is in place. Managers must also ensure the performance management system includes metrics that can measure progress toward the strategic vision. In order to provide actionable data, these measures require certain characteristics; measures should consider all aspects of the organization's performance, to include structure, process, and outcomes. Outcome measures are considered the most prescient in determining progress. These measures, however, generally take longer to compile and also require metrics that can determine if the actions in place are taking the organization in the proper direction on a shorter interval. In addition, the research indicates measures should be well defined and integrated, and should not succumb to the common "check box" approach of planning, measuring, and reporting results as independent and isolated activities. Changing organizational culture will require strong leadership, persistence, and time.

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III. THE PROBLEM SPACE DEFINED

A. INTRODUCTION

The problem of establishing a performance management system for the homeland security enterprise is evaluated through three central components: the driving forces and requirements for a performance management system, the initiatives taken by DHS to implement a system, and these efforts' gaps and shortfalls. There are three main document categories influencing the design and implementation of a performance management system for grant programs. They are: public laws and federal regulations (which mandate the specific system requirements), DHS policy documents, and DHS strategy documents. In addition to the various assessment tools developed and implemented over the past 10 years, numerous policy, doctrine, and legislation efforts have also been enacted.

B. PUBLIC LAW AND FEDERAL REGULATION

1. The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974

The Stafford Act established "programs for the federal government to provide major disaster and emergency assistance to states, local governments, tribal nations, individuals, and qualified nonprofit organizations."[116] Recently updated under the Sandy Recovery Improvement Act, the Stafford Act is the foundational guidance for all FEMA programs.

While the Stafford Act offers little guidance for performance measurement, it holds the president responsible for establishing comprehensive standards to assess the effectiveness of federal major disaster and emergency assistance programs. In addition, annual reviews of major disaster and emergency preparedness at the federal and local levels will be conducted to assure programs' maximum coordination and effectiveness, as

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116 Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub L. 93–288, as amended, 42 U.S.C. §5121 (2013)

well as their consistency in policies for reimbursement of States.[117] Finally, under Section 318, "the president is authorized to conduct audits of any assistance provided to state and local governments by the Stafford Act, to assure compliance with related regulations."[118]

Although disaster grant management and performance is not the focus of this research, there is benefit to be gained from collecting data and analyzing the performance of disaster response and recovery activities. The ability to analyze data on federal, state, and local efforts under the three types of federal disaster declarations (Fire Management Assistance Grants, emergencies, and major declarations) would inform the homeland security enterprise on a jurisdiction's level of preparedness, and highlight capability gaps. This data would be instrumental in an overall performance management system because it measures outcomes of a variety of programs and processes. However, it is difficult to dedicate resources to track disaster response performance data during an incident due to resource constraints throughout the homeland security enterprise. There may be opportunities for collecting data from incident command system standard forms, archived briefings, and the emergency operations center incident management platform during the recovery phase or following the incident.

2. Government Performance and Results Act of 1993

The Government Performance and Results Act (GPRA) was enacted, in part, to improve taxpayer confidence in the government. Specifically, the act examined the government's capability "to achieve program results, improve federal program effectiveness and accountability, provide a framework for federal managers to focus on program results, service quality and customer satisfaction."[119] In addition, the GPRA served as a mechanism to inform congressional committees on forming budget allocations to various programs based on results or outcome data.

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117 Ibid.

118 Ibid.

119 *Government Performance and Results Act of 1993*, Pub. L. No. 103–62, 107 Stat. 285 (1993)

To accomplish these goals, the GPRA "established strategic planning, performance planning, and performance reporting for agencies to communicate progress toward achieving their missions."[120] The strategic plan is required for primary functions and operations,[121] and the performance plan is required for each program activity and must be connected to the agency's strategic plan.[122] Finally, the annual report highlights each program's actual performance compared to the stated goals for Congress and the president.[123]

3.   Homeland Security Act of 2002

The Homeland Security Act established DHS from the consolidation of almost two dozen federal agencies with similar mission goals under a single department head. The new department would serve as the focal point to plan and coordinate activities necessary to protect the homeland against all natural or man-caused disasters.[124] The Act also directed compliance with GPRA requirements by requiring each agency to provide an annual report and follow program performance requirements.[125]

4.   Homeland Security Presidential Directive 5, Management of Domestic Incidents, 2003

Homeland Security Presidential Directive 5 (HSPD-5) established clear command and control for domestic incidents under the Secretary of Homeland Security. It also set guidelines for the individual agency actions during an emergency "to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies."[126] Finally,

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120 OMB, Circular No. A-11, Preparation, Submission, and Execution of the Budget (Washington, DC: The White House, 2014), Part 6, Section 200.4, http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/a11_2014.pdf.

121 *Government Performance and Results Act of 1993*, Stat. 286.

122 Ibid., Stat. 287.

123 Ibid., 107 Stat. 288.

124 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 86.

125 *Homeland Security Act of 2002*, Pub L. No. 107–296, 116 Stat. 2264 (2002)

126 Bush, *Homeland Security Presidential Directive 5*.

HSPD-5 formally established a national incident management system (NIMS) and a national response plan (NRP) each required in the Homeland Security Act.

NIMS provides standards to facilitate coordination and effectiveness for any entity, public or private, conducting operations during a domestic incident.[127] Additionally, the adoption of NIMS is required before any federal or state agency can receive federal funds for preparedness development.[128]

5. Homeland Security Presidential Directive 8, National Preparedness, 2003

Homeland Security Presidential Directive 8 (HSPD-8) established the national preparedness goal, which included the development of a system to collect and analyze data across the homeland security enterprise as allowed by law. The system's overall goal is to provide an annual assessment of the Nation's readiness and included requirements to establish measurable priorities as well as specific metrics and assessment standards.[129]

HSPD-8 also called for all states to develop strategies that would prioritize requirements and assess program effectiveness. Although the strategies were to encompass an all-hazard approach, federal assistance to state and local entities remained terrorism centric.[130]

6. Post-Katrina Emergency Management Reform Act of 2006

The Post Katrina Emergency Management Reform Act (PKEMRA) required FEMA establish a National Preparedness System. PKEMRA assigned eight components to the National Preparedness System to facilitate meeting the targets established in the National Preparedness Goal (the Goal)[131] (Section C, Strategy Documents, Policy and Guidance, contains a more detailed discussion of The Goal). Of the eight components,

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127 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 89, Table 4.

128 Department of Homeland Security, *Funding Opportunity Announcement*, 34.

129 Bush, Homeland Security Presidential Directive 5.

130 Ibid.

131 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1425 (2006).

three have applicability to this research: target capabilities and preparedness priorities, a comprehensive assessment system, and reporting requirements.

The target capabilities were to serve as "guidelines to define risk-based target capabilities for federal, state, local and tribal government preparedness." The guidelines are to be specific, flexible, and measureable. Measuring current capability levels to compare against the established targets will identify the resources needed to attain the target levels of capability. The preparedness priorities should use a risk-based approach that will "appropriately balance the risk of all hazards with the resources required to prevent, respond to, recover from, and mitigate the hazards."[132]

The National Preparedness System includes the task of establishing a comprehensive assessment system. The assessment system is mandated to measure performance and outcomes in meeting established target capabilities, the resources needed to achieve the designated target, and the performance of agencies and jurisdictions in the course of conducting actual operations as well as during exercises and training events.[133]

The act also required that FEMA annually report on the Nation's level of preparedness. The report would include information collected in the comprehensive assessment system along with an evaluation of federal resources and their capabilities available to respond to disasters and finally an estimate of the outlay needed to fund SLTT preparedness priorities.[134] To inform the federal preparedness report, states are also required to submit an annual report. State assessments would include overall compliance with federal plans and strategies, a current capability assessment and an estimate of funding needed to meet preparedness goals.[135]

The PKEMRA bolstered FEMA's status as a federal agency within DHS by designating the Administrator as the President's principal advisor for all emergency

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132 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1426 (2006).

133 Department of Homeland Security Appropriations Act 2007, 1428.

134 Department of Homeland Security Appropriations Act 2007, 1429.

135 Department of Homeland Security Appropriations Act 2007, 1430.

management matters and could be designated a Cabinet member during a disaster.[136] In addition, the PKEMRA restored to FEMA the Directorate of Preparedness and the functions of emergency alert, continuity, and grant management programs.[137]

7.   GPRA Modernization Act of 2010

The 1993 GPRA was updated via the GPRA Modernization Act (GPRAMA)[138] and remains the federal government's principal performance management guidance. It provided additional specificity to the strategic and performance-planning requirements for affected departments.[139] In addition, the revisions increased agency consultation with congressional committees in developing and updating goals and objectives. Consideration was also given to external environmental factors affecting agency performance, along with the interaction and collaboration with other agencies to achieve performance goals and objectives.[140] The stated purposes of the GPRAMA are to:

- Improve the confidence of the American people in the capability of the federal government, by systematically holding federal agencies accountable for achieving program results

- Improve program performance by requiring agencies to set goals, measure performance against those goals and report publicly on progress

- Improve federal program effectiveness and public accountability by promoting a focus on results, service quality and customer satisfaction

- Help federal managers improve service delivery, by requiring that they plan for meeting program goals and by providing them with information about program results and service quality

- Improve congressional decision-making by providing more information on achieving statutory objectives and on the relative effectiveness and efficiency of federal programs and spending

- Improve internal management of the federal government, and

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136 Department of Homeland Security Appropriations Act 2007, 1398.

137 Department of Homeland Security Appropriations Act 2007, 1400.

138 Government Performance and Results Act (GPRA) Modernization Act of 2010, Pub. L. No. 111–352, 124 Stat. 3866 (2011).

139 Ibid.

140 Ibid.

- Improve usefulness of performance and program information by modernizing public reporting.[141]

The GPRAMA is the new foundation for developing more effective and efficient government agencies by creating an approach that allows managers and leaders to make informed decisions and set policy based on data and analysis.

8. Code of Federal Regulations Title 44, Emergency Management and Assistance

Code of Federal Regulations (CFR) 44 provides the principle set of rules and regulations governing emergency management and assistance.[142] The regulation's stated central purpose is to "foster intergovernmental partnership and strengthen federalism by connecting state, local, tribal, and territorial (SLTT) jurisdictions into the preparedness system."[143]

CFR 44 underscores the monitoring and program performance requirements for all FEMA grantees. Grantees are responsible for complying with all applicable federal requirements and ensuring they meet established performance goals. Grantees are also responsible for submitting annual performance reports that compare actual accomplishments to the established objectives and quantify output analysis if appropriate.[144] In addition to the annual performance reports, a closeout report is required when the federal agency determines all required grant work has been completed.[145] Finally, the federal agency may consider a subgrantee "high-risk" if there is a history of unsatisfactory performance due to cost overruns or failure to meet program objectives. Under these circumstances, the grantor may restrict grant fund distribution, and require additional and more detailed reporting and increased monitoring.[146]

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141 OMB, *Circular No. A-11, Preparation, Submission, and Execution of the Budget* (Washington, DC: The White House, 2014), Part 6, Section 200.4, http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/a11_2014.pdf.

142 Emergency Management and Assistance, 44 U.S.C. §1-499, (2013).

143 Ibid.

144 Ibid.

145 Ibid.

146 Ibid.

9. Recommendations of the 9/11 Commission Act of 2007

The 9/11 Commission Act implemented recommendations made by the 9/11 Commission, and strengthened the incident command systems' use. The act (Pub. L. No. 110–53) also created additional block grant funding for state, local, and tribal governments under the Homeland Security Grant Program. This program established four new grant programs to counter the terror threat: the Urban Area Security Initiative, the State Homeland Security Grant Program, the Law Enforcement Terrorism Prevention Program and the Tribal Homeland Security Grant Program.[147]

The act also provided accountability requirements for all new and existing recipients of grant funding. The first mandate was an agency programmatic and financial review to be conducted by DHS at least once every two years. This review will ensure grant funds were used according to all applicable laws, guidance, and plans, and will examine how the funds enhanced grantee capabilities.[148] DHS is also mandated to conduct a performance assessment (as established under PKEMRA) to ensure grant funds are appropriately used to meet established target capabilities and preparedness priorities.[149] The second mandate was an Office of Inspector General Performance audit to ensure the effective and appropriate use of grant funds. All states receiving federal grant funds receive at least one audit every seven years. In addition, sample audits are conducted based on the size of the grant and the recipient's past performance history.[150]

10. Presidential Policy Directive 8, National Preparedness 2011

Presidential Policy Directive-8 (PPD-8) is the seminal document for national preparedness, directing the development of four key parts: a National Preparedness Goal; National Preparedness System (NPS); a series of integrated frameworks covering each of the five core mission areas (prevention, protection, mitigation, response, and recovery); and a *National Preparedness Report* (NPR). PPD-8's purpose was to "strengthen the

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147 Implementing Recommendations of the 9/11 Commission Act of 2007, Pub. L. No. 110–53, 121 Stat. 274–281 (2007).

148 Ibid.

149 Ibid.

150 Ibid.

security and resilience of the United States through systematic preparation for the threats that pose the greatest risk to the security of the Nation." PPD-8 specifies that the responsibility for national preparedness resides with all levels of government, the private and nonprofit sectors, and individuals, thus promoting the concepts of "all of Nation" and "whole community" prevalent throughout DHS guidance documents.[151] Finally, PPD-8 directs a comprehensive approach "to measure the operational readiness of national capabilities with clear, objective, and quantifiable performance measures."[152]

Furthermore, PPD-8 directed the NPS to: build and sustain capabilities; include a system of integrated planning frameworks; provide resource and equipment guidance; support community and business preparedness planning efforts; and develop a methodology to measure operational readiness with clear, objective and quantifiable performance measures.[153]

C.   STRATEGY DOCUMENTS, POLICY AND GUIDANCE

1.   National Strategy for Homeland Security of 2007

The stated purpose of the National Strategy for Homeland Security "is to guide, organize, and unify homeland our Nation's homeland security efforts. It provides a common framework by which our entire Nation should focus its effort."[154] One of the tenants within the strategy is the delineation of national response roles and responsibilities. The principle of disaster response is scalability but that "all incidents should be handled at the lowest jurisdictional level possible."[155]

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151 Barack Obama, Presidential Policy Directive 8: National Preparedness (Washington, DC: The White House, 2011), 1, http://www.dhs.gov/presidential-policy-directive-8-nationalpreparedness.

152 Obama, Presidential Policy Directive 8, 4–5.

153 Ibid., 2–4.

154 Homeland Security Council, *National Homeland Security Strategy*, (Washington, DC: The White House, 2007), 1. http://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf.

155 Homeland Security Council, *National Homeland Security Strategy*, (Washington, DC: The White House, 2007), 33. http://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf.

The strategy supports the role of the community and individual by identifying the need to create a culture of preparedness. "Citizens, communities, the private sector and non-profit organizations each perform a central role in homeland security"[156]

Finally, the strategy calls for a Homeland Security Management System led by federal government agencies but is dependent on SLTT jurisdictions for ultimate success. The management system is comprised of four distinct phases: 1) guidance, to include plans, policies, guidance, and doctrine; 2) planning, to include strategic, operational, and tactical; 3) execution, through operational response or exercises and; 4) assessment and evaluation, to identify both successful practices and areas for improvement that will inform potential changes to future guidance and plans.[157]

2.   National Preparedness Guidelines (NPG) Sept 2007

The vision of the NPG supports the collaboration among all levels of government and stresses the importance of the private sector, citizens, and nongovernmental organizations.[158] The guidelines establish a framework of plans, strategies, and systems into the National Preparedness System and include a risk-based, all-hazards, and capabilities-based approach to preparedness.[159] A capability is defined as "the combination of elements required to deliver the desired outcome."[160] The NPG offers 37 capabilities within the primary mission areas of prevention, response, protection, and recovery and includes five common capabilities across all mission areas. A desired outcome is defined for each capability as a means to begin the measurement and assessment process.[161] The NPG outlined a process to include standards and specific

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156 Homeland Security Council, *National Homeland Security Strategy*, (Washington, DC: The White House, 2007), 42. http://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf.

157 Homeland Security Council, *National Homeland Security Strategy*, (Washington, DC: The White House, 2007), 44–45. http://www.dhs.gov/xlibrary/assets/nat_strat_homelandsecurity_2007.pdf.

158 Department of Homeland Security, *National Preparedness Guidelines* (Washington, DC, 2007), 1.

159 Ibid., 2–3.

160 Ibid., 5.

161 Ibid., 4–10.

metrics were in development at the time of publication but it never "established measurable capability requirements for federal and SLTT preparedness efforts."[162]

3.   National Preparedness Goal of 2011

The National Preparedness Goal (the Goal) was the first document released in support of PPD-8. The Goal consists of a vision, capabilities, and priorities for national preparedness.[163]

The Goal is described as "the Nation's approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States" and defines success as "a secure and resilient Nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk."[164] The Goal contains 31 core capabilities that are described as the essential elements necessary to successfully execute the "five core mission areas of: prevention, protection, mitigation, response, and recovery."[165] Of the 31 capabilities, three are common to all five mission areas, while the remaining 28 are specifically aligned to one or more mission areas.[166] Each core capability has one or more capability targets identified as the performance threshold(s) for each core capability. These target capabilities are the basis for developing future performance metrics that will be used to track national preparedness progress.[167] These core capabilities replaced the Target Capabilities List established in 2007.

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162 GAO, *FEMA Has Made Limited Progress*, 31.

163 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning*, 89, Table 4.

164 FEMA, National Preparedness Goal (Washington, DC: Department of Homeland Security, 2011), 1, http://www.fema.gov/media-library-data/20130726-1828-25045-9470/national_preparedness_goal_2011.pdf.

165 FEMA, National Preparedness Goal (Washington, DC: Department of Homeland Security, 2011), 1, http://www.fema.gov/media-library-data/20130726-1828-25045-9470/national_preparedness_goal_2011.pdf.

166 FEMA, National Preparedness Goal, 2, Table 1.

167 FEMA, National Preparedness Goal (Washington, DC: Department of Homeland Security, 2011), 1, http://www.fema.gov/media-library-data/20130726-1828-25045-9470/national_preparedness_goal_2011.pdf.

4. National Preparedness System, 2011

The NPS is intended to be an organized process for the whole community to conduct preparedness activities and achieve the NPG. The NPS currently has six parts:

- **Identifying and Assessing Risk—**the collection of information to identify threats and hazards along with their respective impacts. The national assessment is based on the combination of the Threat Hazard Identification and Risk Assessment (THIRA) conducted by SLTT jurisdictions and the Strategic National Risk Assessment conducted by federal agencies

- **Estimating Capability Requirements**—developed through planning factors that use the threat data to determine specific resources needed to develop the capabilities necessary to achieve the stated outcome.

- **Building and Sustaining Capabilities**—planning to prioritize the identified capability gaps and sustaining existing capabilities.

- **Planning to Deliver Capabilities**—coordination and involvement with the whole community.

- **Validating Capabilities**—exercise and test plans and capabilities to test gaps in preparedness and measure progress.

- **Reviewing and Updating**—a regularly scheduled review and update of jurisdictional capabilities, resources and plans.[168]

The NPS attempts to integrate preparedness activities that have already been accomplished into a system that brings in new tools and processes to achieve necessary outcomes during emergencies and disasters. The six-step methodology builds on PKEMRA by enabling states to collaborate across the whole community for national preparedness.[169] The NPS validates the capability needed by a risk assessment, which informs new or current capabilities. It guides states to develop a collaborative, holistic strategy. Each state is mandated to aggregate their own Threat and Hazard Identification and Risk Assessment (THIRA) to the regional and then national level.

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168 FEMA, National Preparedness Goal (Washington, DC: Department of Homeland Security, 2011), 2–6, http://www.fema.gov/media-library-data/20130726-1828-25045-9470/national_preparedness_goal_2011.pdf.

169 Ibid.

5.   Comprehensive Preparedness Guide 201 (The Threat Hazard Identification and Risk Assessment), 2013

The Threat Hazard Identification and Risk Assessment (THIRA) describes a "standard process for identifying community-specific threats and hazards and setting targets for each core capability," and "includes estimation of resources needed to meet the capability targets."[170] The THIRA identifies the specific "natural, technological, accidental and malicious causes"[171] of disasters for each state and territory, and specifies established capabilities to mitigate or respond to the hazard, as well as the shortfalls. These shortfalls or gaps should be linked to the jurisdiction's funding goals and objectives. However, it is impractical for every state and territory to counter every known threat or hazard. Therefore, the risk or probability of the threat occurring is also critical to prioritizing the desired capability development.

The THIRA is a relatively new DHS requirement. "FEMA officials stated that the THIRA process is intended to facilitate the development of a set of national capability performance requirements and measures."[172] "Such measures, however, are not yet developed. Until clear, objective, and quantifiable capability requirements and performance measures are developed, the NPS will not be able to identify and close its resource and capability gaps."[173]

6.   Strategic and Performance Plans

a.   Strategic Plans

Required by the GPRAMA, strategic plans require updates at least every four years, with congressional consultation every two years. The extracted elements that should be included in the strategic plan include:

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[170] Department of Homeland Security, *Threat and Hazard Identification and Risk Assessment Guide, Comprehensive Preparedness Guide (CPG) 201, Second Edition.* (Washington, DC, 2013), 1, http://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf.

[171] Robert Bach (thesis advisor), in discussion with the author, February 13, 2015.

[172] Maurer, *National Preparedness*, 12.

[173] Ibid., 13.

- A comprehensive mission statement covering the major functions and operations of the agency

- General goals and objectives, including outcome-oriented goals, for the major functions and operations of the agency

- A description of how to achieve the goals and objectives, including operational processes and resources required and cross agency coordination

- Identification of the key external factors that could significantly affect the achievement of the general goals and objectives

- Establishment of a process to evaluate program performance[174]

DHS's 2014–2018 Strategic Plan maintains a "five-mission structure: (1) prevent terrorism and enhance security, (2) secure and manage our borders, (3) enforce and administer our immigration laws, (4) safeguard and secure cyberspace, and (5) strengthen national preparedness and resilience."[175] The two primary identified factors are unity of effort and stakeholder engagement.[176] In addition, DHS established a four-year plan to improve its ability to collect, analyze, and report on data sources, referred to as the Analytic Agenda. The outcome of this effort aims to improve DHS's ability to employ analytically informed decisions and operate under data-driven management.[177]

The strategic plan should be the seminal document to answer the questions: What does it mean to be prepared? What are the attributes of a prepared homeland security enterprise? How much preparedness is enough? The biggest challenge for determining preparedness in a dynamic and changing environment is that we often do not know what preparedness is, but we know what it is not when it fails to meet customer expectations.[178] This leads to perhaps the even more difficult questions: What do we

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174 Government Performance and Results Act (GPRA) Modernization Act of 2010, Pub. L. No. 111–352, 124 Stat. 3866–3867 (2011).

175 Department of Homeland Security (DHS), *Fiscal Years 2014–2018 Strategic Plan* (Washington, DC: Department of Homeland Security, 2014), 6, http://www.dhs.gov/sites/default/files/publications/FY14-18%20Strategic%20Plan.PDF.

176 Ibid., 6–7.

177 DHS, *Fiscal Years 2014–2018 Strategic Plan*, 11.

178 Todd Harrison, "Rethinking Readiness," *Strategic Studies Quarterly* 8 (Fall 2014):38.

need to be prepared for? How long do we have to be prepared—what are the short and long term issues? What agencies or capabilities are the first, second, and third priorities for funding? "The answers to all of these questions are fundamentally matters of strategy; what it means to be "prepared" can only be understood in the context of one's strategy."[179]

The challenges of overcoming dynamic and evolving threats and hazards are great. Effective and efficient solutions to these challenges are best met by setting priorities: "What does the community need to prepare for? What resources are required in order to be prepared? What action could be employed to lessen or eliminate the threat?"[180] For these reasons, good strategic planning—defining the organization's direction for the future[181]—is critical.[182] "The complexity, difficulty, and importance of the preparedness system underscore the importance of a strategic plan in the development, implementation, and integration of the system."[183]

b. *Performance Plans*

The performance plan's purpose is to establish intermediate goals for the current and next fiscal year that will move the organization closer to meeting their strategic objectives. The relevant elements of the performance plan are:

- Identify the program activities, regulations, expenditures, policies, and other activities contributing to each performance goal

- Identify a lead official for each performance goal, responsible for coordinating the efforts to achieve the goal

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179 Ibid., 39.

180 Department of Homeland Security, *Threat and Hazard Identification and Risk Assessment Guide, Comprehensive Preparedness Guide (CPG) 201, Second Edition.* (Washington, DC: Department of Homeland Security, 2013) 4, http://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf.

181 Secretary of Air Force (IG), *Air Force Inspection System*, Air Force Publication 90–201 (Washington, DC: Secretary of Air Force (IG), 2013), 38.

182 Henry H. Wills, *Strengthening Strategic Planning and Management at DHS*, (RAND Document No. CT-387) (RAND Office of External Affairs, 2013), 4. http://www.rand.org/pubs/testimonies/CT387.html.

183 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning,* 12, http://www.gao.gov/assets/290/289285.pdf.

- Establish performance indicators with quarterly targets to assess overall progress

- Identify major management challenges toward meeting goals and objectives

- Express goals in an objective, quantifiable, and measurable form

- Identify the program activities, regulations, policies, and other activities that contribute to each performance goal, both within and external to the agency

- Identify the officials responsible for each performance goal

- Establish a balanced set of performance indicators to be used in measuring or assessing progress toward each performance goal, including customer service, efficiency, output, and outcome indicators

- Compare actual program results with the established performance goals[184]

c.   Analysis

The DHS Strategic Plan for Fiscal Year (FY) 2014–2018 provides essential information to develop a performance measurement system that can effectively inform decision-makers to shape resource allocations and determine progress. Performance measures are defined as the "metrics used to ascertain actual performance against target levels identified for each core capability; by design, they are clear, objective, and quantifiable."[185] The strategic plan communicates the department's vision, mission, goals, and objectives, and illustrates selective performance measures with their planned targets over a four-year period.

The *FY 2012–2014 Annual Performance Report* (APR) provides a full list of performance measures used for each objective in the strategic plan. The report indicates the need for a strong review process to ensure individual measures are relevant and necessary when compared to retired and new measures. The APR, however, fails to integrate or "roll up" the individual measures within each objective to assess overall success. Likewise, the individual objectives are not integrated to assess the aligned goal.

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184 Government Performance and Results Act (GPRA) Modernization Act of 2010, Pub. L. No. 111–352, 124 Stat. 3866 (2011).

185 FEMA, National Preparedness Goal, A-1.

In addition, the graphic display of relevant trends in the APR would provide a quick performance assessment. In one specific case, the stated performance of the Compliance rate for Customs-Trade Partnership Against Terrorism showed a steady negative trend over a five-year period and was subsequently retired, but lacked explanation for the measurement change.[186] Analysis of the report shows 33 percent of the total measures indicated performance targets of 94 percent or greater level and 20 of the measures stated performance targets of 100 percent.[187] Even though the target performance level may be 100 percent, it would be instructive to understand how many resources would be required to achieve that level of performance, and if perfection is necessary, or even a reasonable expectation.

D.   DHS ASSESSMENT SYSTEMS

Congress has demanded accountability from the homeland security enterprise through performance measurement; however, DHS has struggled to develop a reliable measurement system that could account for the homeland security enterprise's evolving nature. In order to comply with the performance assessment requirements, DHS has established numerous systems designed to measure capabilities, readiness, and preparedness: the State Preparedness Reporting System (SPR), the National Incident Management System Compliance Assistance Support Tool (NIMSCAST), the Grants Reporting Tool (GRT), the Logistics Capability Assessment Tool (LCAT), the Gap Analysis Program (GAP), and the Cost-to-Capability (C2C) pilot program. FEMA has yet to implement the five-step central repository for national preparedness data—known as the Comprehensive Assessment System—called for in 2003's HSPD-8, and later in 2006 with the PKEMRA. The following sections summarize the current systems employed to address FEMA's performance assessment requirement.

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186 DHS, *Annual Performance Report. Fiscal Years 2012–2014*, 22.

187 Department of Homeland Security, *Annual Performance Report. Fiscal Years 2012–2014* (Washington, DC: Department of Homeland Security, 2013), 14–44.

1. Capabilities Assessment for Readiness

The Capability Assessment for Readiness (CAR) was the first attempt to develop a nationwide assessment of emergency management performance. The CAR was created in 1997 in response to a congressional inquiry that called for "a national set of emergency management performance criteria for FEMA grant recipients."[188] CAR was a one-time assessment of capabilities completed over a three-month period through self-assessments by 56 states and territories. The "CAR lacked controls for accurately validating self-reported assessment data, which limited the reliability—and therefore the value of—the data."[189]

2. Gap Analysis Program

The GAP began in 2007 and was designed to assess and improve the response readiness of federal, state and local entities by assessing the gaps in disaster-response capabilities. Initially, FEMA assessed the response of states and territories subject to a Category 3 hurricane. The GAP looked at seven critical response missions of the 37 target capabilities, including: "debris removal, commodity distribution, evacuation, sheltering, interim housing, fuel capacity along evacuation routes, and communications, but did not include comprehensive information for activities related to all 37 target capabilities."[190] In 2009 GAP was expanded nationwide to better assess overall readiness.[191]

The GAP's advertised strengths included a standard tool to estimate the capabilities and resources needed for an effective response that allowed input from state and local emergency managers and first responders. The Department of Health and Human Services (HHS) assessed medical needs from data provided by states and territories. Finally, the GAP utilized a standardized data collection and analysis tool

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188 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning*, 108.

189 Ibid.

190 Ibid., 55, Table 2.

191 Ibid., 106.

(DCAT) that measured preparedness through readiness indicators and quantifiable resource data that could be used with any hazard (not just hurricanes).[192]

It also ultimately provided states flexibility to use scenarios tailored to their unique risks, such as hurricanes or earthquakes. Several limitations of the program, however, were also identified. First, states lacked adequate resources to input accurate capability information into the GAP. Next, process lacked standardization resulting in an unbalanced analysis across the participating states, which added uncertainty to the results. Finally, capability requirements could not be determined due to the lack of a national planning system and the inability of differing levels of government to collaborate. As a result, the GAP was no longer considered a solution to the national preparedness assessment challenge.[193]

3.   State Preparedness Report

First developed and submitted in 2008, the SPR is a PKEMRA-mandated reporting requirement. All 56 states and territories were mandated to complete the report as a condition to receive homeland security grant funding. The SPR assesses current capability levels, identifies unmet target capabilities, and assesses resource gaps. States continue to submit the SPR as a grant requirement,[194] however, "FEMA could not use information in the first reports to compare capability gaps between states because states did not report information using common metrics, and data were not always available to consistently complete the report."[195]

The Federal and State Preparedness Reports each have an annual requirement. The federal report is used to classify the Nation's level of preparedness and assesses how well federal assistance supports national preparedness efforts and resources. The federal

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192 FEMA, *Gap Analysis Program Guidance* (Washington, DC: Department of Homeland Security, September 2009), March 13,2009, https://www.hsdl.org/?view&did=34389.

193 GAO, *FEMA Has Made Limited Progress*, 21, http://www.gao.gov/assets/100/97160.pdf.

194 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1430 (2006).

195 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 55, Table 2.

report is submitted to appropriate congressional committees.[196] Each report is required to assess state compliance with national plans and strategies, identify current and target capability levels, and list the resource gaps necessary to meet the target capabilities based on national priorities.[197]

The SPR is not considered an assessment; FEMA uses the data from the SPRs, along with other data and reports, to create the *National Preparedness Report*.[198] In 2010, FEMA improved the reporting process by developing a web-based survey and included standardized measures to assess progress in achieving the Target Capabilities List. Since 2010, however, the Target Capabilities List has been abandoned, and replaced by the National Preparedness Goal's 31 Core Capabilities, making comparative analysis difficult.[199] Additionally, the reports offer limited data reliability due to the non-standard self-reporting process.[200] FEMA officials say "they have taken steps to address these limitations; and they believe, overall, the data they have are reliable."[201]

4.   National Incident Management System Compliance Assistance Support Tool

The National Incident Management System Compliance Assistance Support Tool (NIMSCAST) provides a web-based, self-assessment instrument for federal and SLTT governments to evaluate and report their achievement of National Incident Management System (NIMS) implementation activities. It is a self-assessment system used to identify successes and shortfalls in compliance, best practices, and technical assistance from the National NIMS Integration Center. NIMSCAST established baseline measures for compliance with NIMS standards, primarily through yes-or-no performance-based

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196 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1429 (2006).

197 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1430 (2006).

198 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*.

199 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System,* 17.

200 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System,* 20.

201 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 13.

questions. NIMSCAST was nationally deployed and included users at all levels of government.[202]

Challenges with the system include a lack of standardization on the entities or jurisdictions within each state that must report NIMS implementation. Also, because NIMS is a self-assessment process the resulting outputs were deemed unreliable.[203] NIMSCAST was scheduled to be included in the PrepCAST system but was unsupported due to a lack of funding. It is unclear how NIMSCAST will integrate with future efforts to measure target capabilities.[204]

5.   Pilot Capability Assessment

The Pilot Capability Assessment's (PCA) purpose was to create and test a systematic, repeatable assessment methodology that could be developed into a capabilities assessment tool, used to create a national picture of preparedness. Moreover, the PCA assessed a region's progress toward self-defined targets for activities linked to the Target Capabilities List. A web-based version of the PCA was piloted in 10 states and an on-site assessment was piloted in six states. However, because "the PCA was labor-intensive and did not generate meaningful data,"[205] primarily due to self-reporting limitations and the associated data reliability issues, the project did not progress beyond the initial pilot.[206]

6.   Grants Reporting Tool

The GRT is a reporting system designed as a quality assurance system rather than as a preparedness assessment system. Its goal was to monitor financial and programmatic

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202 FEMA, *NIMS Implementation Matrix for State and Territories* (October 1, 2006 – September 30, 2007), 4, (Washington, DC: Department of Homeland Security, 2006); Federal Emergency Management Agency (FEMA), National Incident Management Compliance Assistance Support Tool (NIMSCAST) (February 21, 2008), http://www.fema.gov/nimscast

203 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 54.

204 Ibid., 55, Table 2.

205 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 55.

206 Ibid., 55–56.

information from SLTT jurisdictions for grants and cooperative agreement awards. The information gathered from the tool enables FEMA "to evaluate applications and make award decisions, monitor ongoing grant performance and manage the flow of federal funds, and appropriately close out grants or cooperative agreements."[207] The GRT collects information from each grant program and tracks progress in developing capabilities.[208]

Since 2004, the GRT has tracked the grant life cycle of 21 grant programs and collected data on how SLTT governments planned to use grant program dollars and how the money was actually spent. However, using this data to assess preparedness capabilities will be difficult because capability improvements are not part of the data collection regime. Data reliability is an issue with GRT due to self-reporting limitations of the web-based program and the lack of standards to mitigate individual interpretation and provide consistency. GRT reports are completed on a biannual basis to FEMA for monitoring and oversight.[209]

7.   Logistics Capability Assessment Tool

The Logistics Capability Assessment Tool (LCAT) was designed as another self-assessment tool to determine logistical capabilities for disaster planning and operations and the identification of areas needing improvement. The tool was not intended to provide an assessment of collective capabilities since local differences prevent evaluation at the regional or national level.[210] LCAT's pilot program was completed in FY 2010 and is still available for use by the request of SLTT jurisdiction through FEMA's regional technical assistance program.

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207 Federal Emergency Management Agency (FEMA), *FEMA's Grants Reporting Tool* (Washington, DC: Department of Homeland Security, 2009), *The Federal Register,* 59, 216, http://edocket.access.gpo.gov/2009/pdf/E9-27552.pdf.

208 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 10.

209 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 19.

210 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 20.

8.   Cost-to-Capability Pilot Program

The Cost-to-Capability (C2C) initiative was a pilot program launched in 2008 to help FEMA and localities better target and measure federal grant fund. The C2C used the National Planning Scenarios as a basis for its framework. Data was derived from the state's self-assessments and estimates on current and future capabilities. Because the assessment lacked standardization and reliable metrics reliable comparisons could not be made and proved ineffective.[211] FEMA has not yet developed these metrics.

The C2C initiative utilized broad representation from SLTT government officials to develop a data collection system intended to measure the effectiveness of several programs.[212] The initiative, known as the Reporting Requirements Working Group, worked with FEMA to find areas where current data collection efforts could be combined. In their final report, they concluded surveys best meet stakeholder requirements for a data collection tool.[213]

The C2C program "was intended to optimize the impact of homeland security grant dollars on preparedness efforts and measure the return on investment grants."[214] However, in July 2009, FEMA suspended the collection of data from SLTT jurisdictions. As a result, the C2C initiative was suspended in November 2009.[215]

The GAO noted a limitation of C2C: FEMA did not require that grantees utilize C2C, which limited the amount of information collected and resulted in questionable overall value.[216] Thus, FEMA could not "collect comprehensive information to assess how grant funds have improved capabilities."[217] Additionally, C2C lacked a standardized

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211 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*,107.

212 U.S. Department of Homeland Security Office of Inspector General, *FEMA's Preparedness for the Next Catastrophic Disaster -An Update* (OIG 10–123), September 2010, 23, http://www.oig.dhs.gov/assets/Mgmt/OIG_10-123_Sep10.pdf.

213 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 36.

214 U.S. Department of Homeland Security Office of Inspector General, *FEMA's Preparedness*, 12.

215 U.S. Department of Homeland Security Office of Inspector General, *FEMA's Preparedness*, 12.

216 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 107, Table 2.

217 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 55, Table 2.

formula for determining necessary costs, and users assessed their needs using individual judgment.[218]

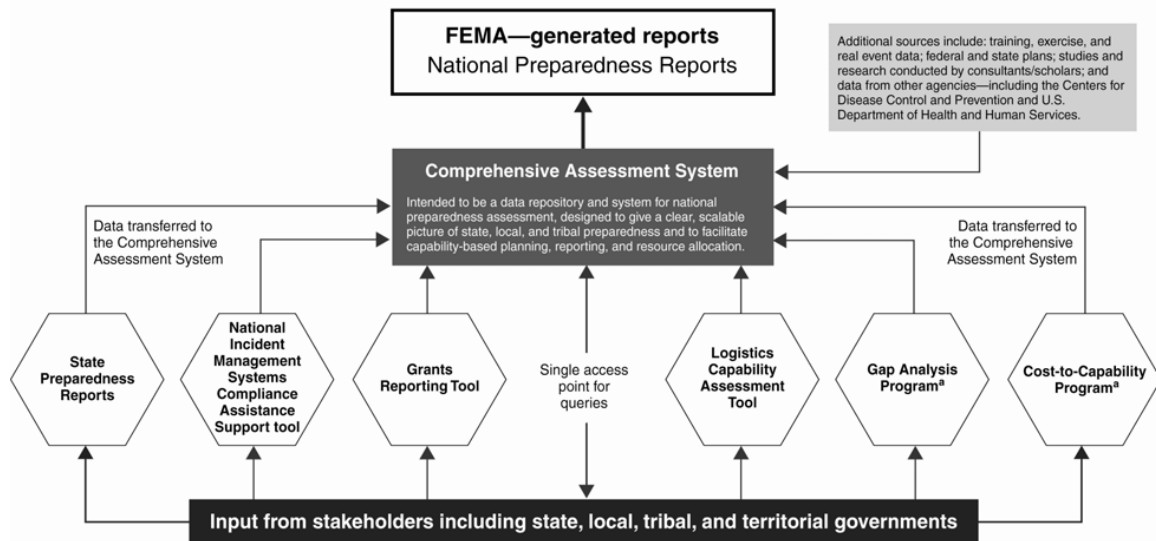### 9. Comprehensive Assessment System

In December 2008, FEMA provided plans to establish the Comprehensive Assessment System (CAS) by May 2010, to "function as a central repository for national preparedness data." The system was to "integrate data from prior reports and legacy assessment systems."[219] The CAS was intended to "assess the nation's prevention capabilities and overall preparedness, including operational preparedness." The assessment system was tasked to measure: compliance with the national plans and strategies; capability levels; resource needs; and, finally, the performance of training, exercises, and operations. PKEMRA mandated that specific plans and strategies within each component of the National Preparedness System "should be updated with clear and quantifiable performance metrics, measures, and outcomes."[220]

The CAS (as shown in Figure 1) was designed to integrate data, conduct analysis, and report on the state of national preparedness. It was not defined as a new data collection tool, IT platform, or automated calculator. To date, data requirements and metrics have yet to be defined. Although there is plenty of data available to collect, such as the SPR, Grant Reporting Tool, Logistics Capabilities Assessment Tool, and data from exercises and disaster response after action reports, it is unclear how the data can be integrated and analyzed to provide meaningful and actionable information to decision makers.

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218 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 22.

219 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning, Exercise and Assessment Efforts*, 54.

220 Department of Homeland Security Appropriations Act 2007 (Post-Katrina Emergency Management Reform Act of 2006), Pub. L. No. 109–295, 120 Stat. 1428 (2006).

Source: GAO analysis of FEMA data.

Figure 1.   GAO Representation of the Comprehensive Assessment System[221]

The primary function of CAS, as illustrated in Figure 1, is a framework that brings together multiple sources of data based on established metrics. It appears the CAS will serve merely as single portal to access the various systems and tools already in place but does not integrate the information or provide any additional analysis capability. It should be noted the Gap Analysis Program, Cost-to-Capability Program, and the National Incident Management Systems Compliance Assistance Support Tool all listed in Figure 1 are no longer active programs. Best practices and lessons learned are two other existing programs not identified that FEMA is considering including in the new system.[222]

10.   National Preparedness System

The NPS was a web-based system that was field tested in ten states through January 2008. The NPS assessed jurisdictions against the 37 TCL target capabilities and was intended to guide users through a comprehensive planning and assessment process that clarified roles, informed investments, and supported strategic decision-making. One of TCL's key benefits was that it would determine capabilities gaps, where they were needed, at what level they were required to function, and what the current capability

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221 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 28.

222 Ibid.

levels were in high-risk locations. The ability to conduct this type of analysis could inform appropriators on how much funding should be allocated by the federal government to SLTT jurisdictions and how long they should be funded.[223] However, "the NPS was discontinued because it was time consuming and did not produce meaningful data. Because it was only piloted, the NPS did not generate meaningful preparedness information from the data collected. FEMA spent nearly $15 million on the system for 2006, 2007, and 2008 before it was discontinued."[224]

11. The Preparedness Compliance Assessment System Tool (PrepCAST)

PrepCAST is a system designed to help unify FEMA's information collection systems. PrepCAST is not designed to be an information collection tool, but rather a platform that houses information collection tools. As the PrepCAST system is further developed, it will allow users to access the various DHS reporting tools through the common portal using a single set of login credentials. Although the initial version of PrepCAST contains only a single application, the SPR, FEMA plans to expand the system to incorporate additional collections, including NIMSCAST, in the future.[225]

E. ANALYSIS OF DHS ASSESSMENT SYSTEMS

Since 1997, FEMA has attempted to implement a comprehensive assessment system that captures and reports on national capabilities and preparedness. As reviewed in this chapter, DHS and FEMA have developed over ten programs to accomplish this task and, as of this writing, there is no specific project or program identified to accomplish this goal.

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223 Are We Prepared? Measuring the Impact of Preparedness Grants Since 9/11, *Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., 2013) (statement of Matt A. Mayer, Visiting Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation).

224 GAO, *FEMA Has Made Progress but Needs to Complete and Integrate Planning*, 55.

225 PrepCAST, PrepCAST web page, accessed October 5, 2013. https://prepcast.fema.gov/PrepCASTWar/login.action;jsessionid=rBGsSfpP6pn2xjN7LXrMxyHCH2v2lnm J1Z7XvjznWML1s2Lm2pwR!641406600.

The review of each system reveals several recurring themes related to the reported challenges and shortcomings: self-assessing and self-reporting; lack of a comprehensive or all-inclusive management system; no established metrics or standards; a labor intensive process and a lack of resources to manage the system; and, finally, inconsistent, inaccurate, and unreliable data.

The THIRA and SPR processes are currently the two primary avenues for SLTT jurisdictions to provide input into the National Preparedness Report. Although there is no current requirement, the THIRA and SPR are scalable to allow jurisdictions below the state level to participate. The state reports are designed to track progress toward meeting preparedness goals. The reports are also used to justify requests for grant funding by identifying capability gaps and the plan or strategy to use grant funds to build or develop the lacking capabilities. The justification is included in the state grant application, along with specific outcomes as a result of the grant investment.[226]

In 2010, FEMA responded to a DHS OIG report on preparedness that refuted the OIG assertion that FEMA has not substantially improved its assessment process of SLTT jurisdictions. FEMA argues the SPRs have "substantially improved their assessments of capabilities/readiness at the national, state, and local levels."[227] While the *National Preparedness Report* has emerged as the preeminent document to assess national preparedness, there are still gaps in data that affect the report's ability to impact decisions on strategy and priorities.

To comply with the annual requirement to report on the state of national preparedness to the president, FEMA compiles data from a variety of sources and works in close coordination with whole community partners. FEMA's approach to developing the report includes the following activities:

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226 *Are We Prepared? Measuring the Impact of Preparedness Grants Since 9/11: Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of Timothy Manning, Deputy Administrator, Protection and National Preparedness, FEMA, DHS), http://www.hsgac.senate.gov/subcommittees/emdc/hearings/are-we-prepared-measuring-the-impact-of-preparedness-grants-since-9/11.

227 Department of Homeland Security Office of Inspector General, *FEMA's Preparedness for the Next Catastrophic Disaster—An Update*, (OIG 10–123), September 2010, Appendix B, 61, http://www.oig.dhs.gov/assets/Mgmt/OIG_10-123_Sep10.pdf.

- Reviewing Threat and Hazard Identification and Risk Assessments (THIRA) and *2013 State Preparedness Report* (SPR) submissions from states and territories

- Conducting outreach to preparedness-related professional organizations and associations

- Conducting research to update key findings from previous National Preparedness Reports and to identify new qualitative and quantitative preparedness data across all 31 core capabilities identified in the Goal

- Evaluating results from established preparedness programs, including exercises and grants

- Soliciting federal departments and agencies for information on notable accomplishments and challenges in enhancing preparedness

- Soliciting updates from federal partners on their operational capability to meet the Goal and their progress in implementing the National Incident Management System

- Partnering with the U.S. Department of Homeland Security (DHS) Office of Infrastructure Protection to collect inputs from federal partners on activities undertaken to strengthen infrastructure security and resilience.[228]

These data collection sources involve a broad range of stakeholders but there is no specificity on the response rate as a result of the solicitation efforts and outreach or on the quality of the information received. The stated intent of the *National Preparedness Report* "is to provide the nation with practical insights on core capabilities that can inform decisions about program priorities, resource allocation, and community actions."[229] The 2014 NPR provides seven key findings as a result of the data collection and analysis process:

- New Approach to Recovery: Major events, such as Hurricane Sandy and the severe 2012–2013 drought, have served as catalysts for change in national preparedness, drawing clearer links between post-disaster recovery and pre-disaster mitigation activities.

- National Areas for Sustainment: Continued progress has resulted in several mature capabilities across multiple mission areas that require ongoing sustainment to meet expected future needs.

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228 FEMA, *National Preparedness Report*, 1.

229 Ibid.

- National Areas for Improvement: Cyber security, Infrastructure Systems, Health and Social Services, and Housing remained national areas for improvement. Long-term Vulnerability Reduction is a newly identified national area for improvement.

- Emergency Policy and Planning Initiatives: New national policy and planning initiatives are focusing efforts to address areas for improvement in preparedness and national risk priorities.

- Impact of Budget Uncertainties: Budget uncertainties have created challenges for preparedness initiatives, resulting in increased emphasis on preparedness innovations and whole community engagement.

- Self-assessment Results from States and Territories: States and territories assessed their capabilities similar to levels reported in 2012, with the highest self-assessment scores in the common core capabilities and the Response mission area. States and territories also reported the most annual progress in Operational Coordination, Planning, and Intelligence and Information Sharing.

- Integrating Tribal Partners: The Nation is integrating tribal partners more systematically into preparedness. However, challenges remain for federal agencies and tribal nations to increase engagement and expand training opportunities on relevant policies.[230]

These key findings are strategic in nature, but it is questionable how much reliable data is available to analyze and compare. This makes it difficult to provide reasonable judgments and decision-quality recommendations. For instance, in the 2014 *National Preparedness Report* the states and territories reported capability levels similar to the 2013 assessment, while at the same time reporting that declines in state budgets and high turnover rates among staff "contributed to gaps in 28 of the 31 core capabilities."[231] There is either reason to question the results of the individual reports, or capabilities are somehow being sustained nationwide with fewer available resources.

Measurement subjectivity is also evident in the 2012 and 2013 NPRs. In 2012, the average preparedness percentage across all core capabilities was 62 percent.[232] In 2013,

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230 Ibid., i.

231 FEMA, *National Preparedness Report*, 9.

232 Ibid., ii.

the percentage fell to just 43 percent.[233] It is unreasonable to think that an investment in excess of a billion dollars into the national preparedness system resulted in a nearly 20 percent drop in capability.[234] In this case, subjectivity seems to have rendered these reports meaningless. The 2014 and 2015 National Preparedness Reports state an average of 40.4[235] and 42.5[236] respectively showing some stability in the data but no trend of an increased capability is evident.

Another discrepancy occurs when the states' self-reported ratings are compared with independent assessments of the Emergency Management Accreditation Program (EMAP). According to the March 30, 2013 NPR, planning was one of the 10 highest rated capabilities among the states.[237] 55 percent of the States and Territories ranked themselves 4 or 5 on the Planning capability within the NPR.[238] This self-rated capability remained stable at 52 percent in the 2014 NPR.[239] However, the top three non-compliant standards in both the 2012 and 2013 EMAP annual analysis reports were contained within the operational planning section of the Emergency Management Standard. Programs undertaking an EMAP assessment were found to struggle to document compliance with common planning elements for continuity of operations and continuity of government.[240]

Prior to the release of the first NPR, FEMA officials said that "their evaluation efforts were useful for their respective purposes, but the national preparedness

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233 Ibid., 8.

234 *Are We Prepared? Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbi*a, 113th Cong., (2013) (statement of Matt A. Mayer, Visiting Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation).

235 FEMA, *National Preparedness Report,* 10.

236 Ibid., 15.

237 Ibid., 8.

.238Ibid.

239 Ibid., 10, Figure 2.

240 Emergency Management Accreditation Program, *Assessment Analysis Report, January – December 2013* (Lexington, KY: Emergency Management Accreditation Program, 2014), 5, http://www.emaponline.org/index.php/root/assessor-resources/47-2013-assessment-analysis-report-1, Accessed November 8, 2014.

capabilities data that have been collected to date through selected evaluation efforts were limited by data reliability and measurement issues related to the lack of standardization in data collection."[241] It is unclear if data quality has improved since 2011 to substantially change the overall evaluation effort. "Despite the important role of individuals and communities in preparing for a disaster, FEMA faces numerous challenges in measuring the effectiveness of its efforts to enhance individual and community preparedness."[242]

The second key component of FEMA's current assessment methodology is the THIRA. As part of the process, state and local governments are to develop individual capability requirements. The collective state THIRA reports are intended to provide FEMA with sufficient data to analyze and set national funding priorities.[243] Completion of the THIRA is a requirement for all state and local governments receiving homeland security funding.[244]

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[241] GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 13.

[242] Department of Homeland Security Office of Inspector General, *FEMA's Preparedness for the Next Catastrophic Disaster -An Update* (OIG 10–123), September 2010, Appendix B, 14, http://www.oig.dhs.gov/assets/Mgmt/OIG_10-123_Sep10.pdf.

[243] Maurer, *National Preparedness, FEMA Has Made Progress*, 12.

[244] Ibid. (Highlights).

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IV. CONCEPTUAL MODEL

The development of the model for performance management in assessing national preparedness is guided by the historical limitations and system requirements as established by federal law. This chapter begins by reviewing and analyzing the historical challenges and limitations of performance management system development. It then explores several concepts that would mitigate these challenges and facilitate a process to meet the GPRAMA's intent.

A. HISTORICAL CHALLENGES AND GAPS IN PERFORMANCE ASSESSMENT

1. Enterprise Complexity

As the fourth largest federal agency (following the Departments of Veterans Affairs, Army, and Navy) and the sixth largest department for federal discretionary budget authorization, DHS's 240,000 personnel and 16 distinct congressionally funded organizational components perform a daunting array of missions.[245] Each functional area maintains its own level of complexity and unique challenges with evolving threats and hazards, resource constraints, and high expectations.

In addition to the challenges of the Department's sheer size and scope of mission, DHS is still immature; it continues to evolve as new or unforeseen consequences confront our understanding of how to best protect, mitigate, respond to, recover from, and prepare for future events. Some of the most dramatic organizational changes in DHS occurred in 2006, due to post-Hurricane Katrina and Hurricane Rita legislative action. Significant changes also occurred (primarily in policy and programmatic areas) in 2013 following Super Storm Sandy. Coordinating and implementing these transformational changes

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245 Office of Personnel Management, "Frequently Asked Questions," http://www.opm.gov/FAQs/QA.aspx?fid=56538f91-625a-4333-84ba-28b3574b7942&pid=013be2c9-8ae5-455d-889c-6e74063441ba, answer to the question "What are the largest federal agencies," As of September 2013; Office of Management and Budget, *FY 2015 Budget of the U.S. Government*, 203, Table S-11, http://www.whitehouse.gov/omb/budget/Overview; Department of Homeland Security, *Agency Financial Report, Fiscal Year 2014* (Washington, DC: Department of Homeland Security, 2014), 6–8, http://www.dhs.gov/sites/default/files/publications/OCFO/dhs_agency_financial_report_fy2014_vol2.pdf.

consumes significant time and resources on top of the daily activities needed to meet strategic goals and objectives.

Three factors that intensify the complexity of DHS's mission are:

1.   The threats are poorly understood. From homegrown, violent extremism to nuclear or cyber terrorism and climate change, the variety and ambiguity of threats to consider requires rigorous analysis and prioritization.

2.   The consequences of these threats and the means to mitigate or prevent them affect the nation in many ways. How can our communities, critical infrastructure, and modes of communication be protected without affecting the quality of the system, and what are the factors that set priorities?

3.   Solutions require multiple capabilities and, thus, integrated coordination and planning among multiple DHS component agencies and stakeholders. DHS must decide how to allocate resources across the homeland security enterprise, or whole community, to most effectively solve problems of national concern.[246]

The concept of a "whole community" approach emerged as a key factor in national preparedness in 2008, when PPD-8 was signed into law. PPD-8 directed an "integrated, all-of-Nation, capabilities-based approach to preparedness."[247] The National Preparedness Goal defined whole community as "a focus on enabling the participation in national preparedness activities of a wider range of players from the private and nonprofit sectors, including nongovernmental organizations and the general public, in conjunction with the participation of federal, state, and local governmental partners in order to foster better coordination and working relationships."[248] The term is sometimes used interchangeably with "all-of-nation." See Figure 2 for a visual representation of the term.

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246 Wills, *Strengthening Strategic Planning*, 4. h.

247 Obama, Presidential Policy Directive 8.

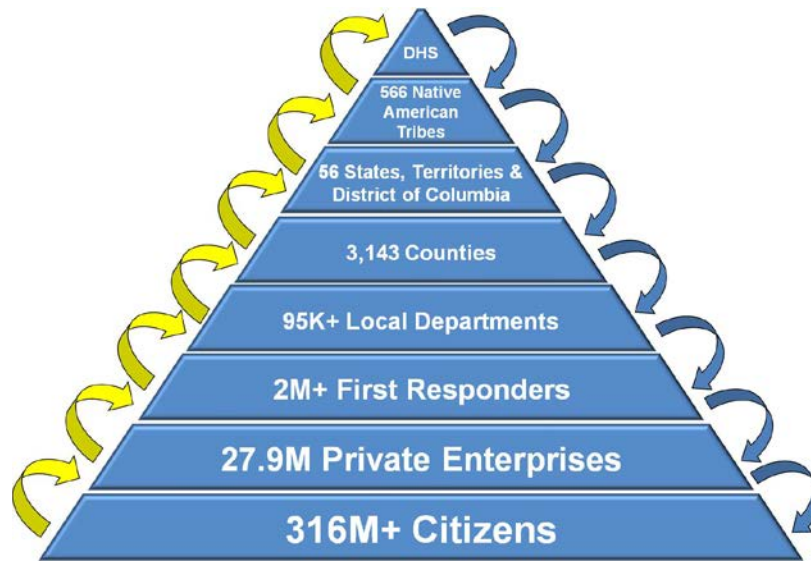248 FEMA, *National Preparedness Goal*, A-2.

Figure 2.   Whole of Community

More recent DHS strategic documents include whole community as a core concept. The *Quadrennial Homeland Security Review* (QHSR) included the term as an "area of priority" for development, and it is mentioned 13 times throughout the report. Likewise, the latest DHS Strategic Plan mentions whole community six times. Three core principles are used to define the whole community approach: (1) "understanding and meeting the actual needs of the whole community; (2) engaging and empowering all parts of the community; and (3) strengthening what works well in communities on a daily basis."[249] The whole community includes the following subgroups:

- Individuals and families, including those with access and functional needs

- Businesses

- Faith-based and community organizations

- Nonprofit groups

- Schools and academia

- Media outlets

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249 DHS, *The 2014 Quadrennial Homeland Security Review*, 73.

- All levels of government, including federal, state, local, tribal, and territorial partners[250]

DHS relies heavily on the states and territories for whole community engagement; the NPR describes the output from the integrated self-assessment process to be based on "multi-disciplinary, statewide efforts to evaluate risk and assess preparedness, engaging representatives from law enforcement; fire service agencies; public health and medical systems, including emergency medical services, hospitals, and healthcare organizations; and non-governmental organizations."[251]

A GAO study found that coordination among regional jurisdictions proved difficult due to competing priorities and general autonomy.[252] Overcoming these challenges will require homeland security managers to take states' and municipalities' many different operational structures and civic traditions into account.[253] This is an enormous challenge that requires strong leadership, understanding, and commitment at every level. Leadership is perhaps the greatest influence on the process of performance management, and therefore its success. With a population as large and diverse as the whole community, unity of effort will be difficult to achieve. It is essential for leadership to prioritize performance management if the whole community is to yield reliable results.[254] The key to incremental progress in this area will be a focused and cohesive effort that can begin breaking down the national preparedness enterprise's complexities into manageable and prioritized segments. Then, the process of identifying and collecting meaningful data can begin.

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250 Ibid., 74.

251 FEMA, *National Preparedness Report*, 1.

252 GAO, *Urban Area Security Initiative*: *FEMA Lacks Measures to Assess How Regional Collaboration Efforts Build Preparedness Capabilities* (GAO 09–651) (Washington, DC: U.S. Government Accountability Office, 2009), 12. http://www.gao.gov/new.items/d09651.pdf.

253 Ibid.

254 Frank Camm et al., *Charting the Course for a New Air Force Inspection System*, (RAND Document No. TR-1291-AF) (RAND Corporation Technical Report Series, 2013), 42–43, http://www.rand.org/content/dam/rand/pubs/technical_reports/TR1200/TR1291/RAND_TR1291.pdf.

2. Self-Assessments

There are several means currently available for conducting assessments on SLTT preparedness programs. These assessments often have different goals and outcomes and are referred to under different names (such as audits, technical assistance visits, monitoring visits, or evaluations). Some are mandated under federal law, such as the required grant audits, and others are imposed by the federal department or program manager. Others, still, are voluntary, such EMAP. While technological tools and systems offer a virtual means to provide limited monitoring of programs and project performance, most assessments include a face-to-face component or site visit. These visits are referred to as external assessments. The other means of assessing performance is through an internal process, or self-assessment.

The NPR is required annually by PPD-8 and summarizes the progress made in achieving the targets established in the 31 core capabilities. Some of the report's most critical inputs include information from the states and territories, described as "an integrated self-assessment process." The NPR inputs come from the THIRA, SPR submissions, and grant reporting updates. All of this input is completed by the individual jurisdictions on a self-assessment and reporting basis.[255]

The self-assessment process is one of the fundamental causes of a system that provides inconsistent, inaccurate, and unreliable data. And the resulting measurement subjectivity is one of the critical limitations of the current reporting system. For example, "because states develop their own capability requirements and use individual judgment rather than a quantitative standard to assess preparedness capabilities, it is difficult to identify differences and compare capability levels across states."[256] The policy of allowing individual data collection decisions creates non-standard data, variation among states in reporting structures, and subjective interpretation of the collected data. These limitations will ultimately prevent DHS from comparing metrics across all levels of

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255 FEMA, *National Preparedness Report*, 1.

.256 Maurer, *National Preparedness*, 12.

government.[257] In addition to the general reporting variations, there may also be undue influence, either intentionally or subconsciously, on how the data is presented. These influences are caused by the consequences or rewards of a department admitting mistakes, programmatic shortfalls, or areas of non-compliance.[258] One of the most important criteria for preparedness metrics is that they should avoid subjective assessments (particularly self-assessments) when possible.[259]

While much of the blame for unreliable and invalid data stems from the self-assessment process, it also has known benefits when incorporated into the overall performance management system. For example, the U.S. Air Force (USAF) views the self-assessment as a foundational element of their overall inspection system, calling it instrumental in "promoting responsibility and accountability within the unit."[260] One benefit of the self-assessment process is that it develops a culture that self-identifies deficiencies and fosters continuous improvement. Additionally, it develops trust among all of the stakeholders and a resulting reduced reliance on external assessments.[261]

The key to effectively using self-assessment in the performance management system is to complement it with an independent and external validation of the internal process. The USAF has one such rigorous external inspection program to follow individual self-assessments. Two other programs that utilize the combination of internal and external assessments are the Baldrige Performance Excellence Program and the Emergency Management Accreditation Program. Each of these programs are discussed further in section D of this chapter.

3.   Expertise

One challenge some historical assessment systems faced was a lack of resources to properly manage system inputs, or process that was too time consuming. At the root of

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257 Ibid.

258 Camm et al., *Charting the Course*, 42–43.

259 Harrison, "Rethinking Readiness," 52.

260 Secretary of Air Force (IG), *Air Force Inspection System*, Air Force Publication 90–201 (Washington, DC: Secretary of Air Force (IG), 2013), 19.

261 Ibid., 31.

these two symptoms is a dearth of dedicated staff that possesses the knowledge, skills, and expertise to effectively work within the performance management system. Unless there are staff members dedicated to the performance improvement process, measuring preparedness can require trade-offs between the time staff members spend on assessments and the time allocated to other demands.[262] States generally do not have readily available staff who maintain the knowledge, skills, and abilities to run a performance management system, nor do they have the resources to support a dedicated assessment position.[263] A recent RAND study on the quality of self-inspection programs revealed staff may be well qualified to perform their primary duty assignments but unqualified to serve in a performance management role; this is a potential root cause for unreliable reporting.[264] FEMA officials, however, stated that "the cost of using federal employees or contractors to collect and validate preparedness data at the state and local levels would be prohibitive."[265]

The Department of Defense (DOD) addressed the staffing challenges by levying a requirement on all services to train and certify at least five percent of an organization's staff as Lean Six Sigma Green Belts (the lowest level of staff certification), and one percent as Lean Six Sigma Black Belts (the highest level of staff certification).[266] The distinction of "onboard population" is significant in that no additional positions were authorized for the new performance management requirement. The intended goal was to add a performance management skill set to every unit and drive improvement from within. It is not clear if the services were able to attain this goal, although USAF

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262 CBO, *Linking the Readiness of the Armed Forces to DOD's Operation and Maintenance Spending*, (Washington, DC: Congressional Budget Office, 2011), 6, http://www.cbo.gov/sites/default/files/04-25-readiness.pdf.

263 Yee San Su, "On the Challenge of Assessing National Preparedness," Homeland Security Library, accessed Aug. 10, 2015. https://www.hsdl.org/?view&did=696054.

264 Camm et al., *Charting the Course,* 42–43.

265 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System*, 13.

266 Department of Defense, *Implementation and Management of the DOD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program*. DOD Instruction 5010.43. Enclosure 2, 2. a., 2.b. (Washington, DC: Department of Defense, July 17, 2009).

personnel recommended that, in order to be fully effective, performance management staff must be added to the resource requirement list and accordingly funded.[267]

4.   Value of Effort

Value of effort can also be viewed in terms of return on investment. In the context of time and resources used to design, collect, and analyze performance data, the actual value may be difficult to assess. In terms of the allocation of federal grant dollars, however, the value may only be evident (at least from the grantee's perspective) in terms of the rewards. For example, consider the three criteria in determining funding authorizations for states and territories (legislative minimum amounts, anticipated effectiveness, and risk methodology). For the 25 states that receive only the minimum amount—which essentially eliminates the risk and effectiveness portions of the equation—would the allocation decision change if one of those states put the time, effort and resources into a compelling effectiveness context?[268] Full transparency of the decision process is extremely important to ensure the proper organizational behavior is reinforced and encouraged. In addition, standardization among all the grant recipients will be necessary to level the playing field and prevent the jurisdictions with more available resources to always "one-up" those with less.

One example of positive results yielded from investment in a performance management system occurred within the Federal Aviation Administration. The Administration's voluntary reporting programs were implemented without a significant budget increase due to program performance improvements that, over time, offset the imposed costs. Although no formal quantitative analysis of the voluntary reporting program's effectiveness was available, there was unanimous agreement that the voluntary reporting programs had been "well worth the effort," and that "the payback was very high."[269] This consensus was based on the outcomes of data reported, which included significant numbers of safety issues and resulted in corrective actions. There is also a

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267 Camm et al., *Charting the Course*, 46.

268 FEMA, *Grant Programs Directorate Information Bulletin #398a* (Washington, DC: Department of Homeland Security, 2014), 5, http://www.fema.gov/media-library/assets/documents/97599.

269 Camm et al., *Charting the Course*, 52.

consensus that the oversight and quality assurance programs in place prior to the voluntary programs would not have identified most of the safety issues, which means proactive corrective actions would not have been possible.[270]

5.   Benchmarks and Standards

A significant impediment to collecting consistent, reliable, and accurate preparedness measures is the lack of process standards. A typical approach to measuring performance is counting resources or activities—such as how many exercises are conducted annually, or how many level-4 protective suits are on hand. Although easy to conduct, this approach is risky because it does not focus on the actual quality or effectiveness of the capability that will have greater impact on the outcome of a response operation. For example, two jurisdictions may each have a current preparedness, mitigation, or other relevant plan, but one jurisdiction effectively collaborated with relevant stakeholders and completed a plan that is a useful reference in the conduct of operations. In contrast, the other jurisdiction produced a plan merely to satisfy the federal grant requirement and is not considered a useful reference for training, exercises or operations. Two common mistakes leaders make are either to capture strategy session decisions in a glossy pamphlet that is never used, or to not capture the ideas, assuming the participants will take the appropriate action on their own.[271] Another example is the significant difference between counting bodies available to respond to specific events and ensuring the staff members are properly trained, with recent experience to keep their skills sharp. A standardized approach to these activities will help ensure agency processes and data collection efforts are reliable.

Benchmarking is described as "the process of identifying, learning, adapting to, and measuring outstanding practices and processes from any organization to improve performance."[272] In short, it is a tool used to seek out and identify standards. The

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270 Ibid.

271 Patrick M. Lencioni, *The Advantage: Why Organizational Health Trumps Everything Else in Busines*s, (San Francisco, CA: Jossey-Bass, 2012), 134.

272 "Benchmarking, Best Practices, and Performance Measures for Public Entity Risk Management-Guidelines," Public Entity Risk Institute, November 1999, 1, http://www.riskinstitute.org/peri/images/file/Benchmarking_Guidelines.pdf.

resulting standards could be considered either a baseline of performance, due to regulations or other guidance, or the gold standard for the industry, which highlights ultimate goals for performance. A benchmark, then, is "a standard or point of reference used to measure or judge quality or value."[273] The focus of the benchmarking process should be on supporting the organization's strategic objectives and providing challenging but attainable goals.[274] Benchmarking can be conducted on internal elements of the organization across the homeland security enterprise or other government agencies, among private sector entities, or within academia or national foundations. Ultimately, finding the best benchmark may require a review of several candidates with similar processes, and could evolve and change over time.[275]

Benchmarks should be managed by DHS to establish priorities and ensure standardization across the enterprise. Several opportunities exist to collect and establish common standards. Perhaps the most comprehensive established standard on the specific activities of the homeland security mission reside within the Emergency Management Standard.

The Emergency Management Standard was established in compliance with the American National Standards Institute requirements and policies. The program is "intended to indicate the essential components of a quality emergency management program. State and local emergency managers created the standards; they describe what a program should accomplish, but not necessarily how compliance should be achieved. This provides flexibility to accommodate the variety of sizes and complexity found in state and local emergency management programs in the United States. Full compliance with all the standards is required for full accreditation."[276] Currently, jurisdictions volunteer to enter the accreditation process and fund the external team that conducts the

273 Ibid.

274 Gregory H. Watson, *The Benchmarking Workbook* (Portland, OR: Productivity Press, 1992) 5, http://www.uspto.gov/web/offices/com/oqm-old/benchmarking_workbook_9_00.pdf.

275 Colorado Chapter of the Public Risk Management Association, *Benchmarking, Best Practices, and Performance Measures for Public Entity Risk Management- Guidelines* (Fairfax, VA: Public Entity Risk Institute, 1999), 1, http://www.riskinstitute.org/peri/images/file/Benchmarking_Guidelines.pdf.

276 Emergency Management Accreditation Program, *Candidate's Guide to Accreditation*, (Lexington, KY: Emergency Management Accreditation Program, 2011), 1.

assessment. The Emergency Management Standard consists of 64 standards within 16 broader categories:

- Program Management

- Administration and Finance

- Laws and Authorities

- Hazard Identification, Risk Assessment and Consequence Analysis

- Hazard Mitigation

- Prevention

- Operational Planning

- Incident Management

- Resource Management and Logistics

- Mutual Aid

- Communications and Warning

- Operations and Procedures

- Facilities

- Training

- Exercises, Evaluations, and Corrective Action

- Crisis Communications, Public Education, and Information[277]

Another avenue to identify viable benchmarks and establish enterprise standards is the audit, inspection, and program monitoring functions that currently exist in DHS. The DHS OIG has a unique opportunity to view and analyze a substantial sample population every year, and the entire enterprise over a multiple-year period. The ability to conduct thorough programmatic reviews of a variety of organizations conducting identical missions with similar processes allows the OIG to assess and identify the best performers across the SLTT community and highlight those techniques and procedures

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277 "2013 Emergency Management Standard," EMPA, accessed Aug. 8, 2015.
http://www.emaponline.org/index.php/root/for-programs/23-2013-emergency-management-standard.

that could benefit others. The USAF conducts a similar program with their OIG, in which they disseminate information, innovative ideas, and lessons learned as a result of inspections and changes to inspection policy.[278]

Other potential areas to review and identify standards within the homeland security enterprise include:

- The National Institute of Standards and Technology (NIST) (http://www.nist.gov/). The NIST standards are often technical in nature, and there are many areas of research within NIST that directly support the homeland security mission.

- The Baldrige Program (http://www.nist.gov/baldrige/). Within NIST, the Baldrige Program is "a public-private partnership that is committed to improving competitiveness and performance of U.S. organizations"[279] through education and assessment tools and criteria.

- The International Organization for Standardization (ISO) (http://www.iso.org/): The ISO has over 19,000 standards publications involving technical specifications, product standards, process standards, and regulatory requirements for products and associated processes.[280]

International organizations performing the same mission are also ideal templates for identifying standards. Countries with similar strategic missions and advanced homeland security functions include Great Britain, Israel, and Australia, among others.

6. Standardized Data

The Goal asserts that "all levels of government and the whole community should present and assess risk in a similar manner in order to provide a common understanding of the threats and hazards confronting our nation."[281] One of the key challenges in using state and local data to provide a national preparedness assessment is the jurisdictions' differences in terms of capabilities, culture, threats and hazards, and population densities,

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278 Secretary of Air Force (IG), *Air Force Inspection System*, Air Force Publication 90–201 (Washington, DC: Secretary of Air Force (IG), 2013), 10.

279 "Baldrige Performance Excellence Program Mission Statement," NIST, accessed Aug. 8, 2015. http://www.nist.gov/baldrige/about/index.cfm.

280 International Organization for Standardization, International Standard 9000; *Quality Management Systems—Fundamentals and Vocabulary-Third Edition*, September 15, 2005, 2.

281 FEMA, *National Preparedness Goal,* 3.

to name a few. Given their uniqueness, is there a way to assess the individual states and jurisdictions while maintaining the capability to combine the data into a cohesive and accurate national picture of readiness? "While we have a natural predilection for a picture of national preparedness derived from a commonly applied set of rules, we must come to terms with the dissonances found in each state. This will require a mastery of fundamental principles, an awareness of cognitive pitfalls, flexibility in how we structure our objectives, a willingness to assimilate and adapt, and a mechanism by which we can accelerate the pace of development."[282]

Data can be difficult to collect and is problematic to correlate when there are differing reporting standards. One potential source of standardized and reliable data can come from DHS OIG reports. These audits are used to ensure that states comply with applicable laws and regulations in the execution of their grant award. The reports can be considered a reliable source for data because the OIG uses "generally accepted government auditing standards" (GAGAS) that provide a consistent and high-quality framework for conducting audits.[283]

In addition to the financial and legal aspects of grant management, the OIG also reviews some management, programmatic, and administrative aspects of homeland security. Recent findings show "challenges related to the states' homeland security strategies, obligation of grants, reimbursement to subgrantees for expenditures, monitoring of subgrantees' performance and financial management, procurement, and property management."[284] These findings have potential to provide valuable contributions to performance measurements.

OIG reports show states did not always obligate Homeland Security Grant Program (HSGP) grants to subgrantees in a timely manner. This practice has the potential

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282 Yee San Su, "On the Challenge of Assessing National Preparedness."

283 Government Accountability Office (GAO), *Government Auditing Standards 2011 Revision*, (GAO-12-331G), (Washington, DC: U.S. Government Accountability Office, 2011), 5, http://www.gao.gov/products/GAO-12-331G.

284 Department of Homeland Security Office of Inspector General, *Countering Terrorism; Semi-Annual Report to the Congress* (Washington, DC: DHS, April 1, 2014—September 30, 2014), 14–16, https://www.oig.dhs.gov/assets/SAR/OIG_SAR_Apr14_Sep14.pdf.

to increase administrative costs and hinder the subgrantees' ability to accomplish their designated capability development activities or complete projects. Additionally, many states did not provide adequate oversight of subgrantee performance in execution of their allocated grant funds. This shortfall limits the understanding of the lower jurisdiction's progress in developing or achieving essential capabilities. In addition, states often did not ensure an alignment of requested funds to identified threats and vulnerabilities potentially resulting in poor management of scarce resources. Weaknesses in property management were also found to negatively affect the state's ability to make informed decisions on eliminating capability gaps.[285]

As an illustration, the chart in Figure 3 shows the audit results for state and territorial jurisdictions during FY 2014. In all, there were 14 total audits with only one jurisdiction reporting zero recommendations for corrective actions.[286] The data, if only at a high level, clearly shows several areas for concern and some potential focus areas for the entire enterprise.

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285 A*re We Prepared? Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (statement of Anne L. Richards, Assistant Inspector General for Audits, DHS).

286 Thirteen states were evaluated in their management of homeland security grant programs in FY14. http://www.oig.dhs.gov/index.php?option=com_content&view=article&id=210&Itemid=198.

FY 14 Homeland Security Grant Award Audit Results

Result Category	# Reported
Obligation of Grant Funds to Subgrantees	13
Subgrantee Monitoring/Oversight	11
Property Management and Accountability	9
Measuring Preparedness Improvements	7
Homeland Security Strategies	6
Procurements	5
Personnel Time Charges	4
Fusion Center Operations	2
Review and Approval of Grant Expenditures (internal controls)	2
Financial Reporting Accuracy	2
Sustainment Capabilities	2
Single Audit Services	1
Preparedness System	1
Training and Exercise Activities	1
Policies and Procedures	1
Equipment Usage	1

Total Assessments   14

Figure 3.   DHS OIG Homeland Security Grant Award Results[287]

In addition to identifying capability gaps and effectively building toward closing those gaps, the DHS OIG has also identified programmatic shortfalls with state preparedness programs. One common deficiency involves the process of developing state homeland security strategies. The OIG found many state strategies lack specific goals and objectives and many others were outdated. Other states did not have an updated strategy that reflected current priorities and threats which can negatively impact budget decisions.[288]

In their latest annual analysis report, the EMAP organization outlined three areas in which state, local, and now private entities have the greatest challenges for non-

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287 Derived from individual state and territorial audit reports taken from the DHS OIG website, http://www.oig.dhs.gov/index.php?option=com_content&view=article&id=210&Itemid=199)

288 A*re We Prepared? Measuring the Impact of Preparedness Grants Since 9/11, Hearing Before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Emergency Management, Intergovernmental Relations and the District of Columbia*, 113th Cong., (2013) (Statement of Anne L. Richards, Assistant Inspector General for Audits, DHS).

compliance. All three areas fall within the planning standards section of the Emergency Management Standard. The specific areas are plans for continuity of government (COG), continuity of operations (COOP), and emergency response/operations, communications, and recovery.[289]

Comparing the results of the DHS OIG and EMAP assessments highlights the organizations' different approaches. The OIG's focus tends to follow accounting principles and standards while looking at organizational strategic plans and general performance. The EMAP assessment is more focused on the various programmatic mission requirements. Both perspectives are important for analyzing performance, and a combined approach would provide a more comprehensive assessment.

There are also challenges to identify and collect proper metrics. Measurements must be tied to processes or outcomes of identified goals and objectives through organizational strategic plans. However, not all of the identified metrics will be owned or generated by the organization desiring the data, and other organizations or departments may not always be willing to provide the needed data. Another trial is finding a measurement that will provide the appropriate feedback within the required period of time. Taking annual measurements will not allow for timely policy or process corrections and would hamper management effectiveness. Measurements that fluctuate on a daily or weekly timeframe, on the other hand, are perhaps too specific to provide meaningful and actionable data.

The DOD established guidance for implementing their performance management system to ensure "a common set of standards for training, certification, deployment, and operational approaches that apply a common body of knowledge for implementation and execution of CPI/LSS (continuous process improvement/lean six sigma are two disciplines for performance management systems) across DOD organizations."[290]

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289 Emergency Management Accreditation Program, *Assessment Analysis Report, January – December 2013* (Lexington, KY: Emergency Management Accreditation Program, 2014), 6, http://www.emaponline.org/index.php/root/assessor-resources/47-2013-assessment-analysis-report-1, Accessed November 8, 2014.

290 Department of Defense Instruction 5010.43, Implementation and Management of the DOD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program, July 17, 2009, 6.c.

B.   ALIGNMENT

The current federal performance reporting mechanism for all SLTT jurisdictions consists of three main products: the SPR (required annually with stakeholder input from jurisdictions within the state), the THIRA (also required annually and with stakeholder input), and reports required by individual grant programs exceeding $100,000 per project or grant period—this report is submitted on a government-wide form called the Performance Progress Report (SF-PPR).

The foundation of the performance management system resides in the DHS's core strategic documents: the *Strategic Plan*, *Quadrennial Homeland Security Review*, *Annual Performance Report*, and *National Preparedness Report*. This foundation is represented in Figure 4.
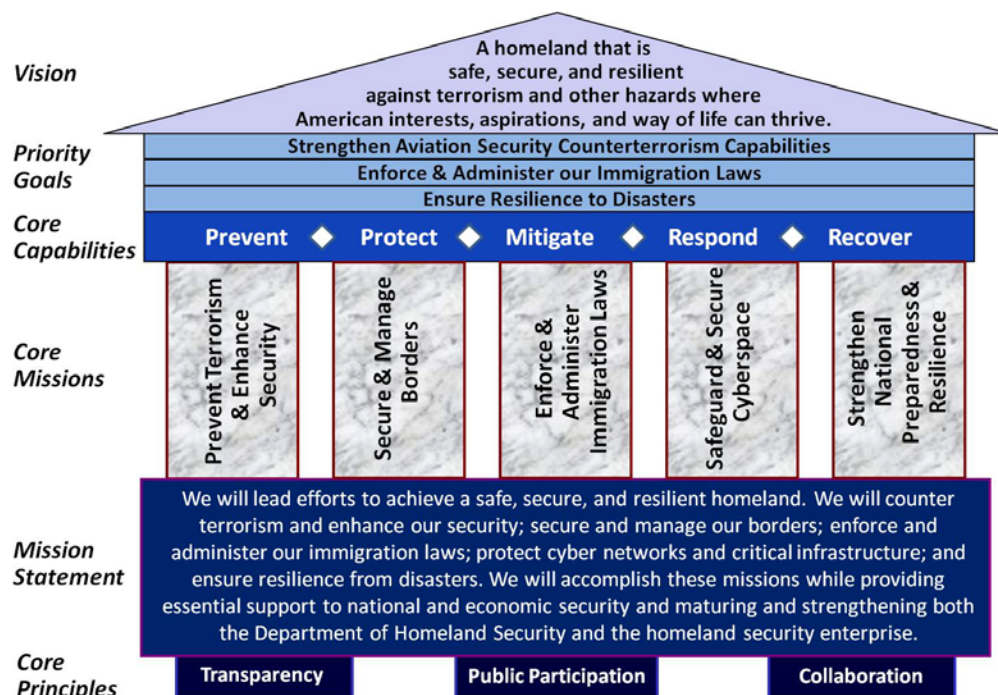

Figure 4.   Foundation of DHS Strategic Planning[291]

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291 Data derived from Department of Homeland Security, *The 2014 Quadrennial Homeland Security Review*, http://www.dhs.gov/sites/default/files/publications/qhsr/2014-QHSR.pdf. and Department of Homeland Security, *Fiscal Years 2014–2018 Strategic Plan*, http://www.dhs.gov/sites/default/files/publications/FY14-18%20Strategic%20Plan.PDF.

It is essential for PPD-8 and all of its directed guidance documents to align in order to properly measure and evaluate performance. An enterprise's key elements (its people, processes, customers, strategy, and leadership) must have synergy or unity of effort to realize established strategic goals and objectives. To be successful, alignment occurs in two key dimensions: vertically and horizontally. The chart in Figure 5 depicts the essential elements of the vertical and horizontal alignments.
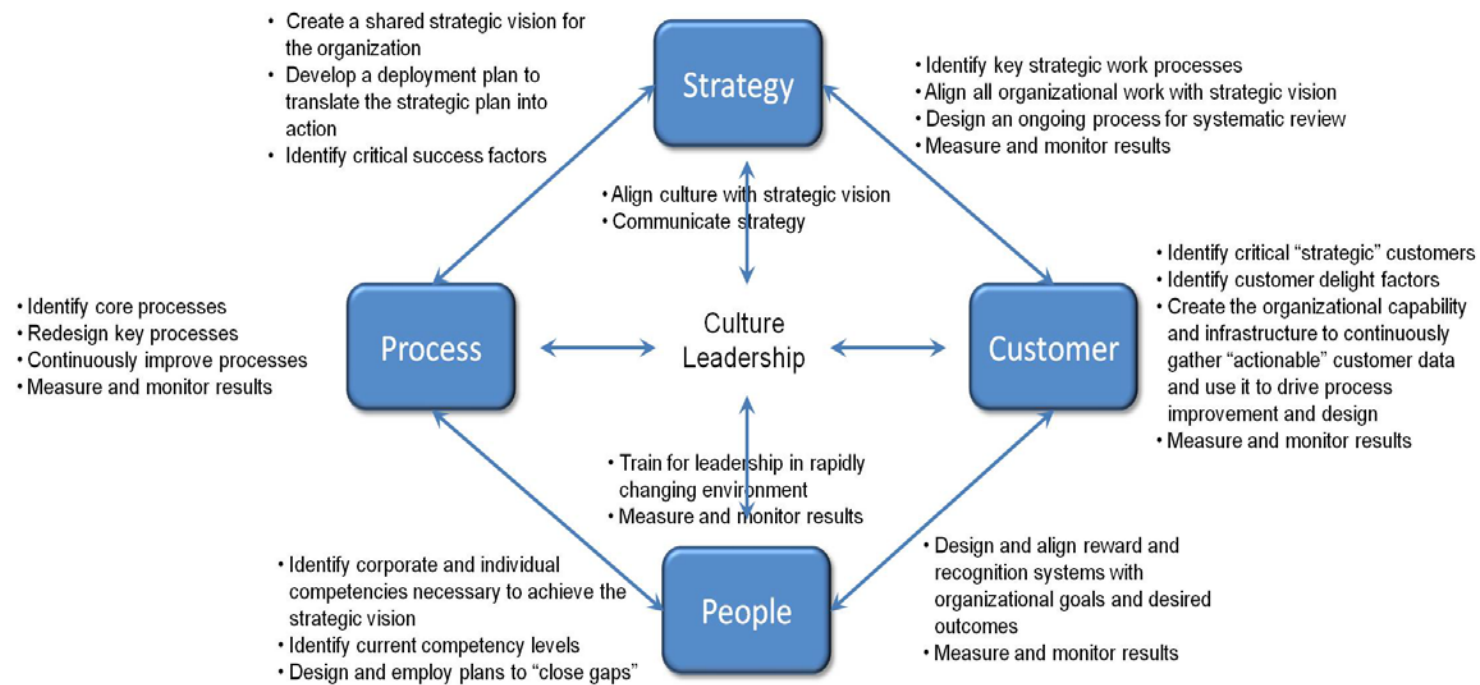
- Create a shared strategic vision for the organization
- Develop a deployment plan to translate the strategic plan into action
- Identify critical success factors

- Identify key strategic work processes
- Align all organizational work with strategic vision
- Design an ongoing process for systematic review
- Measure and monitor results

- Align culture with strategic vision
- Communicate strategy

- Identify core processes
- Redesign key processes
- Continuously improve processes
- Measure and monitor results

- Identify critical "strategic" customers
- Identify customer delight factors
- Create the organizational capability and infrastructure to continuously gather "actionable" customer data and use it to drive process improvement and design
- Measure and monitor results

- Train for leadership in rapidly changing environment
- Measure and monitor results

- Identify corporate and individual competencies necessary to achieve the strategic vision
- Identify current competency levels
- Design and employ plans to "close gaps"

- Design and align reward and recognition systems with organizational goals and desired outcomes
- Measure and monitor results

Strategy

Process

Culture Leadership

Customer

People

Figure 5.   Vertical and Horizontal Strategic Alignment[292]

292 George Labovitz and Victor Rosansky, *The Power of Alignment—How Great Companies Stay Centered and Accomplish Extraordinary Things* (New York: John Wiley & Sons, 1997), 232.

Vertical alignment ensures all members of the enterprise are linked to the strategy and drives an opportunity for involvement at all levels; horizontal alignment links the customer to the business processes and ensures the outcome meets the recipients' expectation.[293] In terms of national preparedness, strategic policy and guidance mandates that the customer is integrally involved in not only providing input to the process, but also as a resource provider. PPD-8 directs the whole community as an integral part of the process "to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation."[294]

One way to align the goals and objectives to DHS is to complete a matrix similar to the one shown in Figure 6. Using this type of approach will illuminate how the many SLTT programs fit into the national strategic objectives. Completing this type of activity should also include the many local and state stakeholders (whole community) who play a role in the various homeland security and emergency management aspects. This activity should also assist the SLTT community in the grant application and justification process.

293 Ibid., 26–37.

294 Obama, Presidential Policy Directive 8, 5.

STATE HOMELAND SECURITY & EMERGENCY MANAGEMENT STRATEGY ALIGNMENT & DEPLOYMENT MATRIX

Figure 6.   Strategic Alignment[295]

295 Data derived from Department of Homeland Security, *Fiscal Years 2012–2016 Strategic Plan*, http://www.dhs.gov/sites/default/files/publications/DHS%20Strategic%20Plan.pdf.

"Strategy alignment ensures strategic goals and priorities cascade across the enterprise with supporting implementation and initiative priorities."[296] An important aspect of strategy alignment is performance management methods that make visible performance gaps and problem resolution. In addition transparently identified gaps, a key component of alignment is accountability and the associated dialogue.[297]

DHS provides strategic guidance to SLTT jurisdictions through grant funding opportunity announcements (FOA). The guidance provides funding priorities but has a generally non-directive approach, using language such as "grantees are expected to" and "grantees should."[298] It is unclear what actions DHS would take against grantees that did not follow the FOA's intent. For FY 2014, the priorities were determined from the 2013 NPR, and included "cyber security, recovery of core capabilities, integration of individuals with functional and access needs, enhanced resilience of infrastructure systems, and matured public-private partnerships."[299] Since the NPR is still developing (it is only on its third annual iteration), using the report for determining funding priorities is new for FY 2014. To complement the selected annual grant priorities, 25 percent of the total HSGP funding allocation is required to be directed toward law enforcement terrorism prevention activities. In addition, since 80 percent of the HSGP authorization to each state must be passed to local units of government, there is a built-in whole community aspect to this grant program.

Analyzing the DHS funding priorities from FY 2008 through FY 2014 leads to two distinct observations. First, while the priorities are left purposefully vague for SLTT flexibility, the years from 2008 through 2013 revealed little specificity in goals and objectives. In addition, there seemed to be little continuity through the years, or reasoning for priorities. Second, the 2014 funding priorities based on the NPR are trending toward

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296 Department of Defense Instruction 5010.43, Implementation and Management of the DOD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program, July 17, 2009, 6.b.

297 Ibid.

298 U.S. Department of Homeland Security, *Funding Opportunity Announcement (FOA), FY 2014, Homeland Security Grant Program (HSGP)*, March 18, 2014. http://www.fema.gov/media-library/assets/documents/92397.

299 Ibid., 33.

slightly better fidelity and specificity. This fidelity will continue to improve in conjunction with reporting system development, but standardization and unreliable state self-reporting will continue to be an issue until the process is enhanced. Funding priorities for FY 2008 through 2014 are outlined in Figure 7.

FY	Homeland Security Grant Program Funding Priorities				
08	Measure Progress Toward National Preparedness Guidelines	Strengthen IED-related Capabilities	Strengthen Preparedness Planning		
09	Measure Progress Toward National Preparedness Guidelines	Strengthen Planning and Citizen Preparedness Capabilities	Strengthen Information Sharing and Collaboration Capabilities	Strengthen Medical Surge and Mass Prophylaxis	Strengthen CBRNE Capabilities
10	Guarding Against Terrorism	Securing our Borders	Enforcing our Immigration Laws	Improving Readiness for Response and Recovery	
11	Whole Community	Build Prevention and Protection Capabilities			
12	Implementation of PPD-8 and Whole Community Approach	Build and Sustain Law Enforcement Terrorism Prevention	Maturation and Enhancement of Fusion Centers		
13	Implementation of National Preparedness System & Whole Community Approach	Build and Sustain Law Enforcement Terrorism Prevention	Maturation and Enhancement of Fusion Centers	Innovation and Sustained Support for Preparedness	Improve Immediate Emergency Victim Care
14	Cybersecurity	Recovery-focused core capabilities	Integration of individuals with functional and access needs	Enhancing the resilience of infrastructure systems	Maturing the role of public-private partnerships

Figure 7.   Homeland Security Grant Program Funding Priorities FY 08-14[300]

PPD-8 directed an "integrated, all-of-nation, capabilities-based approach to national preparedness."[301] The latest HSGP funding guidance calls for programs that are based on risk-driven, capabilities-based strategic plans that address both the sustainment of current capabilities and the mitigation of capability gaps. The guidance further states that "grantees are to prioritize their funding in order to address gaps in achieving

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300 Data obtained from respective Funding Opportunity Announcements & Guidance from the FEMA Grants website: https://www.fema.gov/preparedness-non-disaster-grants

301 Obama, Presidential Policy Directive 8, 1.

capability targets set through the annual THIRA, and identified through the annual SPR."[302]

All states and territories are provided funding authorization according to three criteria: legislative minimum amounts, anticipated program effectiveness, and DHS's risk methodology. In addition, they are expected to consider funding priorities identified in the previous year's NPR.[303]

This guidance shapes the questions that determine funding allocation. For the SHSP, the baseline funding formula for 2014 was 0.35 percent of the total allocation to 52 states and territories, and 0.08 percent to the remaining four territories comprising approximately 19 percent of the total budget.[304] The DHS determines relative risk to a jurisdiction by analyzing the area's population, critical infrastructure, and economic security. Finally, the effectiveness component is based on how project description in the investment jurisdiction section of the grant application aligns with the gaps identified in the state THIRA and SPR. Of the 56 eligible SHSP grantees, 25 receive funding solely on the baseline funding formula.[305] It is not clear or readily transparent how the effectiveness and the DHS risk assessment criteria affect or influence funding determinations.

Given the lack of available preparedness performance criteria, it is unlikely that this component holds significant weight within the analysis. If, however, reliable and meaningful effectiveness data were available, this component could become a key indicator of the funding allocation equation. Performance data could help answer the question: How successful were the grant applicants in meeting their stated goals and objectives during prior funding years?

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302 U.S. Department of Homeland Security, *Funding Opportunity Announcement (FOA), FY 2014, Homeland Security Grant Program (HSGP)*, 4, http://www.fema.gov/media-library/assets/documents/92397.

303 Ibid., 57.

304 FEMA, *FEMA Grants Program Directorate Information Bulletin #398a* (Washington, DC: Department of Homeland Security, 2014) 5, http://www.fema.gov/media-library/assets/documents/97599.

305 Ibid.

An organization's ability to establish performance criteria and show significant progress toward identified targets is an indicator of effectiveness. A related question to determine program effectiveness is: How did the grant programs meet state or national priorities as identified in their respective strategic plans? Due to the reduction in grant funding over the past six years, there are limited funds available to state homeland security programs and not all priorities can be confronted. It is therefore essential that those limited resources are used to address the strategic priorities. Finally, the question of how jurisdictions are able to sustain and validate capabilities through training, exercises, and equipment maintenance and replacement can be addressed.

Goals, objectives, and priorities can be aligned through a detailed planning process. A simple table identifying DHS's strategy and the SLTT jurisdiction's correlated goals, objectives, and performance metrics is useful to show aligned missions and programs. A conceptual idea of this output is displayed in Figure 8. This process will facilitate management decisions by ensuring that management understands process efficiencies and effectiveness, informs jurisdictional appropriators, and, with additional process development and analysis, provides data to inform Congress of preparedness grant programs' effectiveness.

DHS			STATE/LOCAL/TRIBAL/TERRITORIAL				
Mission	Goal	Objective	Goal	Objective	Priority	Metrics	Supported Core Capability
Preventing Terrorism & Enhancing Security	1.1: Prevent Terrorist Attacks	1.1.1: Understand the Threat	1.1. Strengthen Information Sharing	1.1.1.		1. 2.	Intel & Info Share
		1.1.2: Deter & Disrupt Operations					
		1.1.3: Protect Against Terrorist Capabilities					
		1.1.4: Stop the Spread of Violent Extremism					
		1.1.5: Engage Communities					
	1.2: Prevent the Unauthorized Use or Acquisition of CBRN Materials & Capabilities	1.2.1: Anticipate Emerging Threats					
		1.2.2. Control Access to CBRN					
		1.2.3: Control Movement of CBRN					
		1.2.4: Protect Against Hostile Use of CBRN					
	1.3: Manage Risks to Critical Infrastructure, Key Leaders & Events	1.3.1: Understand & Prioritize Risks to Critical Infrastructure					
		1.3.2: Protect Critical Infrastructure					
		1.3.3:Make Critical Infrastructure Resilient					
		1.3.4: Protect Governmental Leaders, Facilities & Special Events					

Figure 8.   Alignment of Goals, Objectives, and Metrics

C.   PROCESS ANALYSIS

Evaluating performance is more than just outputs, outcomes, or a list of capabilities. In reviewing an organization's ability to perform its mission, there are many other factors that directly impact effectiveness, such as internal decision-making processes, leadership qualities, and external social networks.[306] For this reason, looking at the entire process for efficiencies and quality production will affect the organization's capacity to conduct operations and improve the overall results. This is known as process analysis.

Process analysis involves a detailed review of the horizontal alignment and is commonly known as the "SIPOC," or suppliers, inputs, process, output, and customer.

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306 Alan Kirschenbaum, "Measuring the Effectiveness of Disaster Management Organizations," *International Journal of Mass Emergencies and Disasters* 22 (March 2004): 81, http://www.ijmed.org/articles/389/download/.

These elements describe the flow of goods and services through an organization that eventually lead to outcomes and recognized success levels. For this analysis, the SIPOC model is reversed; it begins with perhaps the most critical element in the chain: the customer. The reverse flow follows the COPIS model as illustrated in Figure 9.
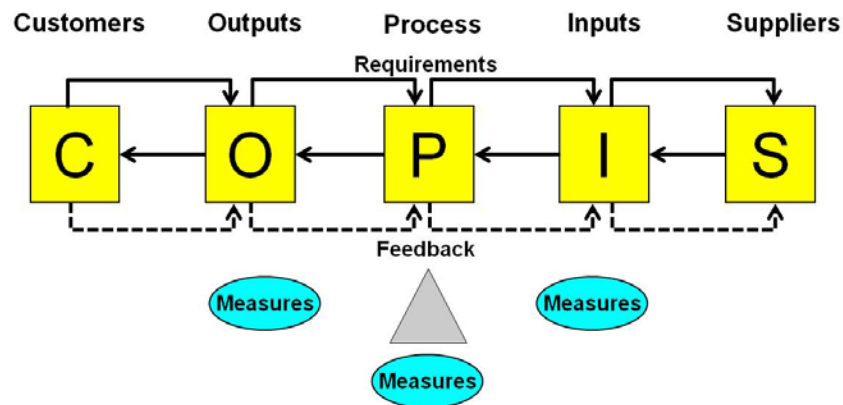
Figure 9.   High Level Process Map

Like the vertical and horizontal alignment model, the COPIS model offers opportunities to identify and collect key metrics and performance measures throughout the entire chain of events. The primary identification sources for these performance indicators are typically found within the core processes. One of performance measurement's main challenges is collecting data that supports the identified metrics. In some cases, the effort to collect data or measure activities will exceed the department's resources. If the measure is critical to assessing performance, there may be opportunities to identify other measures that are easier to collect and, together, provide performance measurement indication. Additionally, the organization may not always own the critical data, and may need to enter into agreements with external entities to access the information. In other cases, data requirements within the department will be available but not currently collected.

While many of the key processes will align with the mission areas identified in DHS's Strategic Plan, there will also be unique processes and mission areas within each

unique jurisdiction, statutory requirements, and risks. Likewise, there will be DHS mission areas that will not directly apply to all SLTTs.

1. Customer

For the purposes of this research and the challenge of assessing and reporting on national preparedness, the customer is focused primarily on congressional appropriators and congressional committees that oversee DHS. For the purpose of a process analysis, the customer can include anyone within the definition of whole community, as all would benefit (receive goods and services) from the enterprise. The Office of Management and Budget (OMB) defines a customer indicator as a type of measure that informs the improvement of government's interaction with those it serves or regulates.[307]

The customer is generally considered the area of primary significance in collecting satisfaction measures. The main challenge in measuring customer satisfaction is often that the result is based on perception. Since the customer is at the end of the goods-or-services delivery process, rates of satisfaction can be considered a reflection of the entire process. In essence, the gap between what the organization claims are its customer-oriented goals and the customer's perception its true goal achievement form the basis for a measure of organizational effectiveness.[308]

2. Inputs

Inputs are the resources required to produce a good or service. OMB defines an input indicator as a measure that indicates the consumption of expended resources, especially time and/or money.[309] While preparedness is "often associated with capabilities and training, key inputs can also include people, equipment, supplies, and maintenance."[310] According to the Government Auditing Standards, "inputs are the

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307 OMB, *Circular No. A-11, Preparation, Submission, and Execution of the Budget*, Washington, DC: The White House, 2014), Part 6, Section 200.21, http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/a11_2014.pdf.

308 Kirschenbaum, "Measuring the Effectiveness of Disaster Management Organizations," 87.

309 OMB, *Circular No. A-11*, Part 6, Section 200.21.

310 Harrison, "Rethinking Readiness," 42.

amount of resources (in terms of money, material, personnel, etc.) that are put into a program. These resources may come from inside or outside the entity operating the program. Input measures can have a number of dimensions, such as cost, timing, and quality. Examples of input measures are: dollars spent, employee-hours expended, and square feet of building space."[311]

For the DOD, the current balance of inputs was developed over decades of experience; these inputs have produced an outcome that is deemed positive, as confirmed in recent military operations. The challenge for the DOD, and DHS, is to produce the desired outcomes while ensuring inputs are optimally structured and efficient, and do not waste precious resources. Additionally, in a dynamic environment such as war or disaster, what has traditionally worked in the past may not always work for future events.[312]

3. Process

Process is generally concerned with the internal transactions required to produce an output. There are many measures within the process that can provide indications of efficiency. OMB defines an efficiency indicator as a type of measure, specifically "a ratio of a program activity inputs (such as costs or hours worked by employees) to its outputs or outcomes."[313] Efficiency indicators reflect the resources used to achieve outcomes or produce outputs. Process measures can be as simple as the cost to produce a single unit of output. In other circumstances, it is more useful to find effective practices and then look for lower-cost delivery options.[314] These metrics provide program managers and process owners insight on where bottlenecks or delays in process flow occur. The diagram in Figure 10 shows an example of a simple notional process that would track the cost of human resources and show areas for potential improvement in wasted or idle time. These metrics are types of process indicators, which they OMB define as types of measure that

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311 GAO, *Government Auditing Standards,* 131.

312 Harrison, "Rethinking Readiness," 62.

313 OMB, *Circular No. A-11,* Part 6, Section 200.21.

314 Ibid.

indicate how well a procedure, process or operation is working, (e.g., timeliness, accuracy, or completeness).[315]
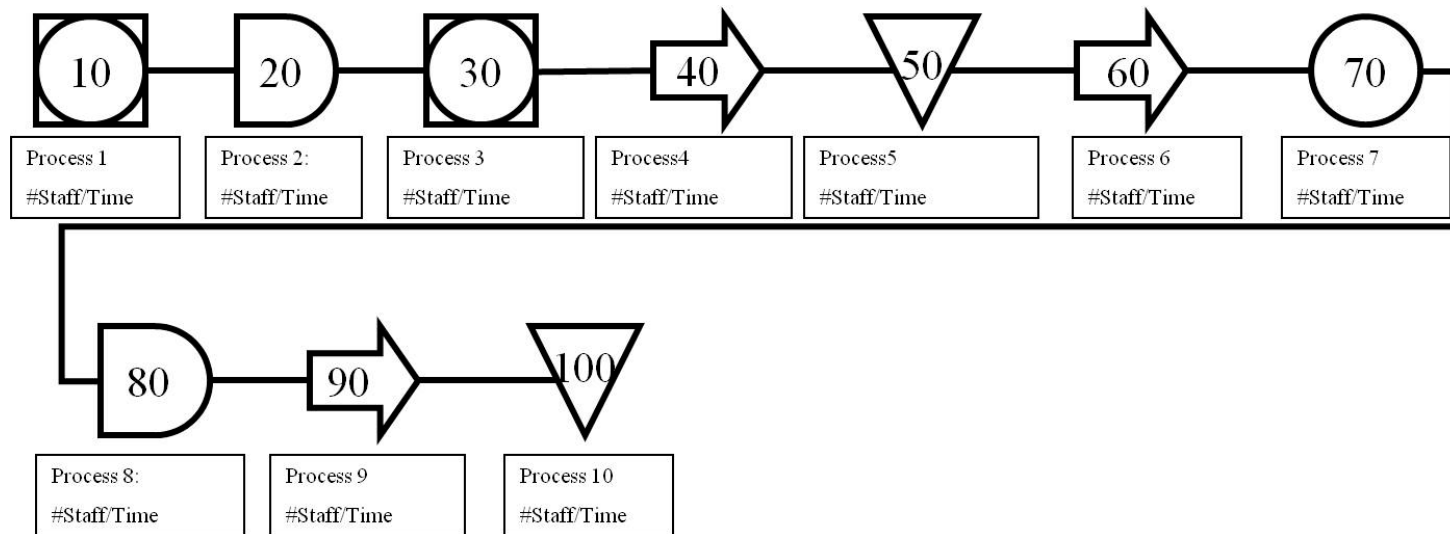
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315 Ibid.

Figure 10.   Simple Process Flow Diagram

Process flow diagrams can represent simple or complex business interactions. Using Michael Hammer's three main process categories of governing, core, and enabling, we can begin to identify the key elements contributing to DHS's mission. The chart in Figure 11 shows a graphic representation of the key elements in each process category. Each category and its elements function together to realize the desired goal, objective, or outcome. It is therefore essential to identify the elements within each of the categories and analyze their respective processes and interrelationships.

Main Processes Categories

| Governing | Plan/Execute Strategic Initiatives | Manage Programs and Processes | Manage Performance Measurement System |

| Core | Prevent | Protect | Mitigate | Respond | Recover |

| Enabling | Develop Human Resources | Provide IT Support | Provide Infrastructure | Manage Financial Resources |
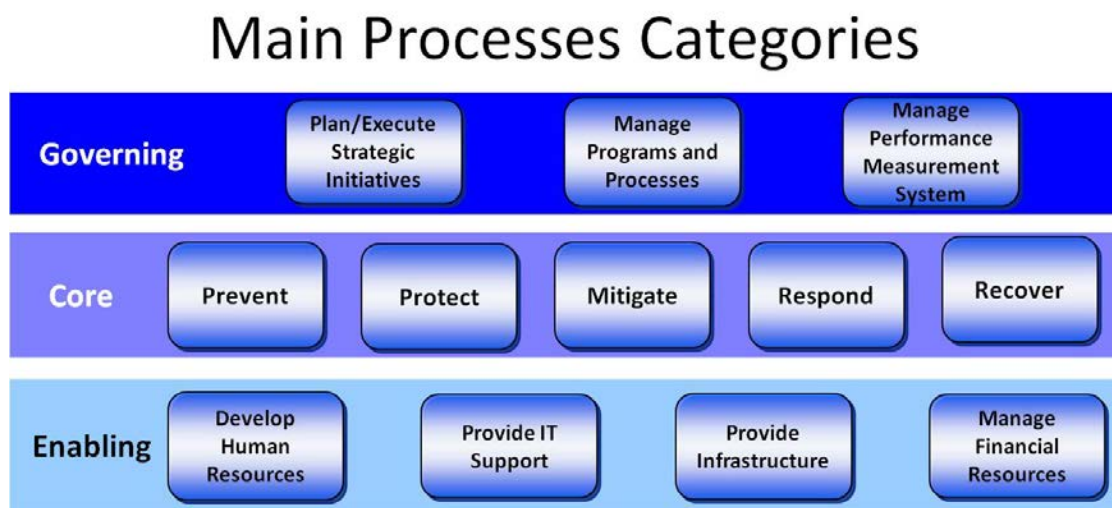
Figure 11.   Three Primary Process Categories[316]

4.   Outputs

Outputs are generally the products or services the customer is demanding. In the manufacturing sector, outputs can be measured by simply counting the number of widgets produced. There can also be associated metrics, such as the time required to produce a widget, the number of defects discovered at the end of the production line, or the production resources' efficiency. Outputs represent "the quantity of goods or services produced by a program. For example, an output measure for a job training program could

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316 Michael Hammer and Lisa Hershman, *Faster Cheaper Better: The 9 Levers for Transforming How Work Gets Done* (New York: Crown, 2010), 19.

be the number of persons completing training, and an output measure for a safety program could be the number of safety inspections completed."[317]

OMB describes an output indicator as a type of measure, specifically "the tabulation, calculation, or recording of activity or effort, usually expressed quantitatively."[318] They also distinguish that an output indicator should also have a "reasonable" connection to outcomes. Therefore, output indicators should be based on evidence supporting the relationship between outputs and outcomes.[319]

In the mission areas of readiness or preparedness good output measures can be challenging to develop and collect. Consequently, inputs are often used in lieu of outputs because money spent or the numbers of widgets purchased are easy to document and track. In his report on assessing military readiness, Todd Harrison describes the challenges associated with using inputs over outputs as the primary measurement tool.

> In the DOD, readiness inputs are often used as proxy measures for the output—forces' ability to perform their assigned missions. But an implicit assumption in this approach is that changes in the inputs will result in corresponding changes in the outputs. Moreover, it assumes that the input target levels set by the military are optimal to achieve the types and levels of readiness required by defense strategy.[320]

These assumptions show the limits input measures alone can have on managers and leaders in using this type of data to make informed decisions and reliably track organizational performance.

5.   Outcomes

Outcomes are a program's accomplishments or results. Outcomes may be influenced by a variety of external factors to include cultural differences or a dramatic change in national or local economic conditions. "Outcome measures show the progress

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317 U.S. Government Accountability Office (GAO), *Government Auditing Standards 2011 Revision*, (GAO-12-331G), (Washington, DC: U.S. Government Accountability Office, 2011), 132, http://www.gao.gov/products/GAO-12-331G.

318 OMB, *Circular No. A-11*, Part 6, Section 200.21.

319 Ibid.

320 Harrison, "Rethinking Readiness," 41–42.

made in achieving the stated program purpose. Outcomes also include unexpected and/or unintentional effects of a program, both positive and negative.[321]"

An intermediate outcome indicator is a type of measure that indicates progress against an intermediate outcome. The intermediate outcome then contributes to an ultimate outcome, such as the percentage of schools adopting effective literacy programs, compliance levels, or the rate of adoption of safety practices.[322] Outcome indicators measure progress against the intended result of a program and changes in conditions the government is trying to influence.[323] Examples of outcome measures can be: the retention rate of fully trained staff; the rate of change in safety violations or incidents; or the success rate of corrective actions on previously identified problems.

D.   ASSESSMENT AND REPORTING

The benefits and challenges of self-assessment in the homeland security enterprise were discussed previously in this Chapter in section A. "Systematically using self-reported data or expert judgment in assessments is difficult, but processes can be designed to minimize subjectivity or other skewing effects."[324] One common method to inculcate standardization and reliability into a self-assessment system is to add oversight. There are three examples of oversight that utilize an external form of assessment: the EMAP, the Baldrige Performance Excellence Program, and the USAF.

EMAP uses a self-assessment process to evaluate the efficiency and effectiveness of emergency management programs. To mitigate the challenges of self-assessing and reporting the EMAP provides an independent and on site review of all documentation and programs. The goal of accreditation "is to evaluate an emergency management program's organization, resources, plans, and capabilities against current standards to increase effectiveness in protecting residents' lives and property."[325]

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321 GAO, *Government Auditing Standards 2011 Revision*, 132.

322 OMB, *Circular No. A-1* , Part 6, Section 200.21.

323 Ibid.

324 Jackson, *The Problem of Measuring Emergency Preparedness*, 20–21.

325 Emergency Management Accreditation Program (EMAP), *Candidate's Guide to Accreditation*, (Lexington, KY: Emergency Management Accreditation Program, 2011), 1.

EMAP establishes the minimum acceptable performance criteria for an emergency management program and also establishes a means for strategic improvement.[326] The self-assessment component is designed to identify and correct any deficiencies against the published standards. Then an external team is assigned to conduct an on-site assessment of all the standards and validate the program's self-reporting. There are ten steps to attain EMAP accreditation:

1. Request information

2. Program assessment tool subscription

3. Self-assessment and documentation

4. Application for accreditation

5. Preparation for on-site assessment

6. On-site assessment and report

7. Committee review and recommendation

8. Commission consideration of committee recommendations

9. Accreditation certificate presentation

10. Accreditation process critique[327]

Once accredited, the program is required to submit an annual update on efforts taken to remain EMAP compliant until the next external assessment, which is due after five years. This is similar to the USAF's compliance assessment approach.

The USAF uses an on-site inspection as the assessment system's external component. The USAF inspection system's purpose is threefold: "to enable and strengthen effectiveness and efficiency; to promote improved unit performance and management excellence up and down the chain of command; and to identify issues interfering with effectiveness, efficiency, compliance, readiness, performance, and

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326 Emergency Management Accreditation Program, *A Framework for Assessing Regional Preparedness*, (Lexington, KY: Emergency Management Accreditation Program, 2006), 1, http://www.emaponline.org/?256.

327 EMAP, *Candidate's Guide to Accreditation*, 3.

management excellence."[328] The assessment system provides senior leaders an independent, standardized review of all Air Force units and validates the unit's self-assessment processes.[329]

One of the key benefits of the independent is that it brings in assessors who possess insight and experience from visiting many units that manage the same functions. Not only do they have the most up-to-date knowledge on guidance and policy, they are also able to analyze and evaluate how disparate organizations approach and resolve common challenges. The assessors serve as subject-matter experts, but also as collectors and distributors of established good practices and lessons learned.[330] The objectivity and fresh perspective that outsiders bring to an organization are considered important benefits of any assessment system.[331]

The USAF also conducts a "management inspection" as part of their overall assessment portfolio. This inspection consists of seven major categories: strategic planning, organizational management, customers, process operations, resources, data-driven decisions, and organizational performance.[332] These seven categories are similar in focus to the internationally accepted "Baldrige Criteria for Performance Excellence categories: leadership; strategic planning; customer focus; measurement, analysis, and knowledge management; workforce focus; operations focus; and results."[333] The table in Figure 12 compares the major categories within each assessment for the USAF and Baldrige assessment programs.

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328 Secretary of Air Force (IG), *Air Force Inspection System*, 7–8.

329 Ibid., 19.

330 Camm et al., *Charting the Course,* 46.

331 Ibid., 45.

332 Secretary of Air Force (IG), *Air Force Inspection System*, 38–39.

333 National Institute of Standards and Technology, U.S. Department of Commerce, *Baldrige Performance Excellence Program*, January 2013, ii.

Air Force Criteria	Baldrige Criteria
Organizational Management	Leadership
Strategic Planning	Strategic planning
Customers	Customer focus
Data-driven Decisions	Measurement, analysis, and knowledge management
Process Operations	Workforce focus
Resources	Operations focus
Organizational Performance	Results

Figure 12.　Comparison of Air Force and Baldrige Criteria[334]

The Baldrige Performance Excellence Program uses tools, assessment criteria, and standards to facilitate a robust self-assessment program. In addition to the national program, there are also regional, state, and local programs that can provide assistance to organizations. In order to receive an award for performance excellence at the local, state, or national levels, however, an on-site assessment by trained and credentialed assessors is required. The state benefits of applying for the Malcolm Baldrige National Quality Award are:

- Accelerated improvement efforts: The application process itself accelerates and goes beyond internal self-assessments by bringing a rigorous, objective, external viewpoint to an organization's internal improvement process.

- Energized employees: Pursuing a common goal motivates employees, resulting in energized improvement efforts.

- An outside perspective: Applying for the Baldrige Award is an opportunity to have a team of experts examine your organization objectively and identify strengths and opportunities to improve. Five to eight trained experts from an independent Board of Examiners spend a minimum of 300 hours reviewing each application, and site-visited applicants receive more than 1,000 hours of review.

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334 Air Force Criteria are obtained from Secretary of Air Force (IG), *Air Force Inspection System*, Air Force Publication 90–201 (Washington, DC: Secretary of Air Force (IG), 2013). The Baldrige Criteria are obtained from "Criteria for Performance Excellence, 2013–2014" Baldrige Performance Excellence Program, http://www.nist.gov/baldrige/publications/archive/2013_2014_business_nonprofit_criteria.cfm.

- Learning from the feedback: Each applicant receives an objective, non-prescriptive, written feedback report of its strengths and opportunities for improvement based on an examination of its award application against the Baldrige Criteria for Performance Excellence. Organizations often use the report in their strategic planning to focus on their customers and improve results, as well as to help energize and guide improvement efforts.

- Aligned efforts and resources: The linkages among the requirements of the seven Baldrige Criteria categories help your organization achieve better coordination and consistency among plans, processes, information, resource decisions, actions, results, analysis, and learning.[335]

E. TRAINING

In order to effectively work within a performance management system, all levels of the enterprise must have trained and knowledgeable staff to advise and assist in strategic and performance planning activities. The functions equivalent to a performance improvement officer (PIO) within the federal system requires highly specific skills and expertise. There are many private institutions that provide standardized and credentialed training and education to meet PIO requirements. In addition to the PIO, the SLTT community will also need to expand their knowledge, skills, and abilities to assess program effectiveness.

Currently DHS, through the Emergency Management Institute, offers a three-day training course, designated the E0122 Emergency Management Accreditation Program. The training is designed to inform emergency management, preparedness, and homeland security personnel with information regarding the accreditation process and assessment system using the established standards.[336] After passing the course exam, participants are eligible to serve as a jurisdiction's or program's accreditation manager, and can also become voluntary assessors for EMAP if they meet additional experience and knowledge requirements.[337] The National Domestic Preparedness Consortium partners are also well

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335 For information about applying for the Malcom Baldrige National Quality Award, please see http://www.nist.gov/baldrige/enter/apply.cfm.

336 Emergency Management Institute (EMI), *Fiscal Year 15 Training Catalog, Train Exercise, Educate*, 48–49, training.fema.gov/EMICourses/EMICatalog.asp.

337 Ibid.

suited to expand their extensive training and education portfolio to include performance management or assessment education.

F.   ORGANIZATIONAL ROLES AND RESPONSIBILITIES

The 9/11 Commission Act of 2007 requires the DHS OIG, to audit individual states' and territories' management of State Homeland Security Program and Urban Areas Security Initiative grants. These audits' objectives are to determine if grant recipients have distributed and spent grant funds effectively and efficiently, and if they have done so in compliance with laws and regulations, state homeland security strategies, and other applicable plans. In addition, the OIG assesses the extent to which funds awarded help meet the National Preparedness Goal objectives. For all deficient areas identified, the OIG provides recommendations designed to strengthen program management, performance, and oversight of the jurisdiction's program.[338]

The latest NPR highlighted a potential issue with divergent perceptions regarding roles and responsibilities in the homeland security enterprise. One of the questions involved a local perspective on federal versus state roles in addressing gaps in the 31 core capabilities. State responses across all the core capabilities ranged from 53 percent to 91 percent in the categories of "entirely a state responsibility" or "mostly a state responsibility."[339] DHS's comments regarding the results were: "These insights reflect state and territory observations from the *State Preparedness Report* and may differ from Federal perspectives on who bears more responsibility for addressing identified gaps. However, these observations promote dialogue among Federal, state, local, tribal, and territorial partners regarding expected roles and responsibilities."[340] This finding is critical to the entire preparedness goal. Without clearly understanding who owns the responsibility for closing capability gaps, how can the homeland security enterprise efficiently close those gaps without substantial duplication of effort?

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338 DHS Office of Inspector General, *Countering Terrorism,* 14.

339 FEMA, *National Preparedness Report*, 11.

340 Ibid.

The EMAP identifies the selection of an accreditation manager as a critical senior management decision. The accreditation manager ensures the data collection and results of all the organization's activities, plans, and procedures meet the established standards. Compliance determination is made through detailed analysis and documentation. This position is best served by someone who can provide long-term continuity to the position for consistent and reliable results.[341]

Metrics, Data, and Measurement

The collection of measurements is a detailed and critical process. As with the threat intelligence cycle, the sole act of collecting data does not provide sufficient context for managers to make informed decisions. Data must be analyzed, compared, sorted or otherwise manipulated to create information. This new information is then synthesized with other information, or experience, to create knowledge. Over time, knowledge is assimilated into managerial and organizational wisdom, which is manifested in the leaders' decisions.[342]

Another way to impart context to data is to use a balanced approach. The recognized standard for balance in a measurement system is the Balanced Scorecard, which uses different viewpoints to analyze an organization's outcome or output. The four main categories used by Kaplan and Norton to develop a balanced perspective on performance are customer, financial, internal business processes, and learning and growth.[343] Applying different sets of data, from different perspectives but related to a specific process, helps provide additional context and facilitates analysis. This kind of data can also be described as contextual indicators, or data that provides situational information for the purpose of better understanding how trends are related to a goal or a program.[344]

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[341] Emergency Management Accreditation Program, *Candidate's Guide to Accreditation*, 2.

[342] Dean R. Spitzer, *Transforming Performance Measurement, Rethinking the Way We Measure and Drive Organizational Success* (New York: American Management Association, 2007), 105–107.

[343] Robert S. Kaplan and David P. Norton, *Translating Strategy into Action: The Balanced Scorecard* (Boston: Harvard Business School Press,1996), 43.

[344] OMB, *Circular No. A-11,* Part 6, Section 200.21.

The primary challenge to understanding national preparedness performance is the data availability and collection gap that is inherent within the "whole community." Current laws mandate federal agencies comply with the collection and reporting requirements for performance management. These directives, however, do not apply to SLTT jurisdictions. DHS, however, through grant guidance, does require SLTT entities to provide investment justifications for expenditures during the application process, progress reports throughout the fiscal year, and the annual SPR and the THIRA reports.

If the whole community is deemed an essential element of the homeland security enterprise and is critical to successfully meeting national goals and objectives, then there needs to be a focused and substantial effort applied toward identifying and collecting meaningful data that can help drive policy, initiatives, and resource allocation. "Whole community partners offer programs and initiatives that contribute to the core capabilities outlined in the Goal. However, in many cases, measures and metrics do not yet exist to gauge performance, either quantitatively or qualitatively, over time. PPD-8 envisions a National Preparedness System that includes a comprehensive approach to assessments using clear, objective, and quantifiable performance measures."[345]

Collecting good data is an arduous and intensive task. As a result, many organizations will select measures that are easy to obtain but may not provide the data needed to make informed decisions. Collecting meaningful measures is often a more complex endeavor and will demand the commitment of time and resources.[346]

The GPRAMA describes several considerations in determining accurate and reliable data sources.[347] First, the intended use for the data and how accurate the data needs to be to measure the progress must be determined. Sometimes, using already available data is preferred, but it does not make sense to measure with a micrometer when a yardstick will provide the needed information. This consideration will ensure data collection resources are used frugally and economically.

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345 FEMA, *National Preparedness Report.*

346 Jackson, *The Problem of Measuring Emergency Preparedness*, 20–21.

347 Government Performance and Results Act (GPRA) Modernization Act of 2010, Pub. L. No. 111–352, 124 Stat. 3866 (2011)

The next step is to identify the data source or sources. The goal for identifying data sources is to minimize the collection process's effort. Adding steps to existing processes in order to collect data is not ideal, but it is often necessary, particularly if data collection was not previously part of the agency culture. Once the data is collected, there must be a means to verify and validate the data values.

The GAO defines verification as "a process of checking or testing performance information to assess other types of errors, such as errors in keying data."[348] Validation is defined as "an effort to ensure that data are free of systematic error or bias, and that what is intended to be measured is actually measured."[349] This step is critical to avoid the old axiom "garbage in, garbage out." Since the data is instrumental to determine funding priorities and other strategic decisions, good data feeding into the decision process is vital. Verification and validation support the data's accuracy and reliability and instill confidence in management for credible and transparent decisions.

Finally, any limitations to the available data will need to be understood and a strategy must be developed to either compensate for the limitation or provide a caveat at the data presentation. There are limitations to all collected data that can lead to poor or uninformed decisions, which result in lower performance or inaccurate performance assessments. Significant data limitations should be documented on the assessment with an assessment of potential impacts for the organization as well as mitigation strategies to counter the limitations. Data limitations can include imprecise measurements, incomplete data, an inconsistent data collection process, or data collection rates that do not allow timely strategy adjustments or decisions.[350] Understanding the gaps in current data sources and determining new information needs, along with ways to gather the new information, are important parts of a performance management system.[351]

A review of data quality characteristics among agencies and subject-matter experts is represented in Figure 13. This illustration shows the most universally included

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348 OMB, *Circular No. A-11,* Part 6, Section 260.9.

349 Ibid.

350 Ibid.

351 Jackson, *The Problem of Measuring Emergency Preparedness*, 20–21.

elements are validity, timeliness, consistency, accuracy, and ease of use. The GAO defines these terms as:

- Validity—the extent to which the data adequately represent actual performance.

- Accuracy—the extent to which the data are free from significant error.

- Consistency—the extent to which data are collected using the same procedures and definitions across collectors and times.

- Timeliness—whether data about recent performance are available when needed to improve program management and report to Congress.

- Ease of use—how readily intended users can access data, aided by clear data definitions, user-friendly software, and easily used access procedures.[352]

DOD[1]	Frost[2]	AT&T[3]	GAO[4]	Ammons[5]
Valid			Validity	Valid
		Timeliness	Timeliness	Timely
		Consistency	Consistency	Consistent
Obtainable	Cost Effective		Ease of Use	Sensitive to Collection Costs
Actionable	Actionable			Focused on Performance
Accurate		Accuracy	Accuracy	
	Clear			Understandable
	Technically Correct	Completeness	Completeness	
	Relevant		Appropriate	Resistant to Perverse Behavior
	Comparatives			Non-redundant
Repeatable				Reliable

Sources: [1] *DOD Continuous Process Improvement Transformation Handbook*, May 2006, 2–13. [2] Bob Frost, Designing Metrics; Crafting Balanced Measures for Managing Performance, Measurement International, 2007, 62–63. [3]AT&T Quality Steering Committee, Data Quality Foundations, Quality Process Center, AT&T Bell Laboratories, 1992, 29. [4]Government Accountability Office, GAO-GGD-99-139, Performance Plans, Selected Approaches for Verification and Validation of Agency Performance Information, July 1999, 13. [5] David M. Ammons, A Brief Guide for Performance Measurement in Local Government, National Center of Public Productivity, Rutgers University, 1997.

Figure 13.   Data Quality Characteristics

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352 Government Accountability Office (GAO), *Performance Plans, Selected Approaches for Verification and Validation of Agency Performance Information* (GAO-GGD-99-139), Washington, DC: GAO, July 1999, 13.

These data quality elements and limitations provide the framework for developing a data collection plan. The collection plan should indicate how often each measurement should be taken—hourly, daily, weekly, monthly, or annually. It should also identify the specific date and/or time of day that will provide the best indicator for factors affecting performance. All measurements collected should have an associated date/time stamp to facilitate future analysis.

An additional consideration in establishing the collection plan is who is going to be consuming the data, measurements, or information. It can be:

- A responsible individual for the program, project or task

- The individual or team accountable for the results

- Anyone with a support role in the program or project involved in the process

- Potentially those who need to be informed of program performance (to include stakeholders and government officials)

Additional questions include: What is the best format in which to present the data? What are the best methods to distribute or receive feedback on the data? What analysis or manipulation of the data is necessary to improve usefulness or quality? What costs or burden in the collection process or analysis are necessary before the data can be useful?[353] One example of a data collection plan is shown in Figure 14.[354]

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353 OMB, *Circular No. A-11,* Part 6, Section 240.8.

354 DHS, *Annual Performance Report; Fiscal Years 2013–2015*, 53–54.

Performance Measure	Percent of households that participated in a preparedness exercise or drill at their workplace, school, home or other community location in the past year (New Measure)
Program	Preparedness
Description	This measure calculates the percent of households responding to a survey who indicate that they have participated in a preparedness exercise or drill in their workplace, school, home, or community in the past year. The survey collects individual disaster preparedness data from a random sample of households across the nation. Improving the public's knowledge and ability to take effective protective actions for hazards is a key objective of preparing the public to act quickly and effectively in emergency situations.
Scope of Data	As part of the Nationwide Household Survey, a total of about 3,000 or more telephone interviews are conducted during the summer each year on individual and household preparedness. The survey contacts individuals throughout the United States and the six territories.
Data Source	As part of the FEMA National Survey, a total of about 3,000 or more telephone interviews are conducted yearly on individual and household preparedness. The survey, which is conducted by National Preparedness Directorate (NPD) contractors, collects the data in the statistical analysis program SPSS and then provides a report to NPD on the survey responses.
Data Collection Methodology	The measure calculates the percent of households surveyed via landline or cellular phone who responded affirmatively to the question that asked whether they have participated in a disaster preparedness exercise or drill in their workplace, school, home or another community location in the past year. Survey data is collected using a Computer Assisted Telephone Interviewing (CATI) system and results from the survey are analyzed in SPSS and SAS. When processing the data from the random digit dialing surveys, results are weighted to correct for unequal probabilities of selection. The sample data are also post-stratified according to geography, age, gender and race to account for potential biases such as over-and under-representation of certain population segments. This will adjust the sample's demographic distributions to match the distribution derived from the latest available Current Population Survey estimates.
Reliability Index	Reliable
Explanation of Data Reliability Check	There is currently no way to independently verify the accuracy of participants' responses or the responses recorded by the survey administrator. But, each programmed survey instrument goes through a rigorous quality control process. When the instrument is in the field, this rigorous quality assurance process continues. The overall process includes, but is not limited to, program testing, a pre-test and cognitive testing to determine the effectiveness of the survey and questions, monitoring of in-progress calls, recording of all interviews, and the production of tabulations of every question and variables to detect any missing data or errors. Additional quality measures include the checking of survey skip patterns and data accuracy and consistency checks.

Figure 14.   DHS Data Collection Plan

Preparedness metrics "should measure the ability to perform the missions and tasks assigned to them by the strategy. As the strategy changes and evolves, these tasks can change, and readiness metrics should adapt as well."[355]

The OMB defines a target as "a quantifiable or otherwise measurable characteristic that tells how well or at what level an agency or one of its components aspires to perform. In setting and communicating targets, agencies should include the baseline value from which the target change is calculated."[356] DHS uses capability targets in describing its performance criteria.

Capability targets are defined in the Goal as "the performance threshold(s) for each core capability." Further, performances measures are defined as "the metrics used to ascertain actual performance against target levels identified for each core capability; by design, they are clear, objective, and quantifiable."[357] Using these two definitions, it would appear the Goal intends for its listed capability targets to begin the process of designing or defining a performance measurement system. To analyze the effectiveness of measuring performance based on the information provided in the Goal, it is useful to analyze a sample of the provided capability targets. One target from each of the five core capabilities is provided with a brief analysis in the following paragraphs.[358]

Long-term vulnerability reduction is a core capability within the mitigation mission area. One of the targets assigned to this core capability is to "achieve a measurable decrease in the long-term vulnerability of the Nation against current baselines amid a growing population base and expanding infrastructure base." Some of the performance measurement challenges in in this area are: what vulnerabilities are determined a priority and how are they stratified; how the current vulnerability baselines are determined; and how the changing population dynamics and growing infrastructure affect the collected data's reliability.

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355 Harrison, "Rethinking Readiness," 50.

356 OMB, *Circular No. A-11*, Part 6, Section 200.21.

357 FEMA, *National Preparedness Goal*, A-1, A-2.

358 Ibid., 11–14.

Threats and hazard identification is another core capability within the mitigation mission area. One of the listed target capabilities is to "identify the threats and hazards within and across the states, territories, and the top 100 metropolitan statistical areas, in collaboration with the whole community, against a national standard based on sound science." The annual THIRA report completed by all Homeland Security Grant Program funding is a key component in meeting this target capability. However, the subjectivity of the entities completing the report raises concerns; How can sound science evaluate the reported threats and hazards, and how can the national standard be identified? Additionally, the level of whole community involvement needs to be better defined so the proper statistical sample population can be included in the individual reports.

Fatality management services are a core capability within the response mission area. One of the Goal's target capabilities is to "establish and maintain operations to recover a significant number of fatalities over a geographically dispersed area." To effectively collect measures that can assess this capability, standards and baseline information need to be established. The term "significant number" also needs specificity to eliminate subjective interpretation.

Housing is a core capability within the recovery mission area. Its target capability is to "establish a resilient and sustainable housing market that meets the needs of the community, including the need for accessible housing within the specified time frame in the recovery plan." Again, there is much subjectivity in the wording. What factors determine a resilient and sustainable housing market, and how would those factors change based on the multitude of economic, geographic, and demographic conditions that occur throughout the United States? What standards exist for the jurisdictions that are establishing the time frame to be met?

Intelligence and information sharing is a core capability within the prevention mission area. A listed target capability is to "share relevant, timely, and actionable information and analysis with Federal, state, local, private sector, and international partners and develop and disseminate appropriate classified/unclassified products." To collect less subjective data, there are many terms in this target area that need specific definition, including relevant, timely, actionable, and appropriate.

The target capabilities, as identified in the Goal, provide limited utility on their own merit. Much work is needed to meet the Goal's objective to "analyze current performance against our intended capabilities, the defined targets, and associated performance measures."[359]

It is extremely difficult to measure or otherwise determine effectiveness of all the identified target capabilities. Newly developed quality preparedness metrics will undoubtedly not be perfect predictors of actual performance, and may not measure true capability. The aspiration, then, should be a performance measurement system that "comes closer to collecting relevant performance measures, and to continue improving and refining these metrics over time."[360]

DHS has recognized both the need for better performance measures and the challenge that exists in collecting them. They have identified a new initiative called the Analytic Agenda that will "enable the creation of a full set of performance measures for a given study topic; support analytically informed strategy development, resource allocation, investment, and operational decision making for that topic; facilitate systematic program evaluation; and optimally deliver indicator and warning capabilities to allow the Department to assume an anticipatory posture."[361] Although the initiative's focus is limited by leadership's priority for a given study topic, this proposal offers hope for the inclusion of preparedness measures and whole community involvement.

"Strategy-based metrics are vital because they connect strategy, assigned missions, and mission-essential tasks to the readiness data being collected and analyzed."[362] The links between strategy, mission, and task drive the manager to think and analyze in terms of outputs. The manager uses the defined strategic goals (outputs) to inform budget and resource allocation decisions (inputs). But before a manager can adequately assess the impact resources have on mission performance, an organization must develop measures that can document their ability to accomplish assigned tasks. If

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359 Ibid., 19.

360 Harrison, "Rethinking Readiness," 52.

361 DHS, *Fiscal Years 2014–2018 Strategic Plan,* 12.

362 Harrison, "Rethinking Readiness," 62.

the organization's ability to measure their performance of mission tasks cannot be quantified, then it is not possible to evaluate the program's inputs and processes.[363]

DHS should develop a performance management process that considers multiple perspectives and evidence sources to understand the progress made on each strategic objective. Progress toward achieving individual quantitative performance goals related to the strategic objective is one important consideration, but is not solely representative of the scope, complexity, or external factors that can influence program results and outcomes. When reviewing progress on each strategic objective, agencies should, at a minimum, consider:

- If desired changes have occurred in the ultimate outcomes the agency seeks to improve and whether these outcomes are directly measureable or must be assessed through proxies or other means of evaluation

- Progress made by the agency toward the performance goals established in the most recent Annual Performance Plan that relate to the strategic objective, including both outcome indicators and output indicators

- Program evaluations, research studies, data and policy analysis or other assessments relevant to the strategic objective or the related programs

- External factors affecting the strategic objective, including existing and likely changes in the operating environment, the size of program demand, or challenges faced during program execution

- Benchmarking information from others trying to accomplish the same or similar objectives or using the same or similar key process

- Lessons learned from past efforts to continuously improve service delivery and resolve management challenges, especially in coordinating across organization components and with delivery partners

- Effectiveness of coordination and collaboration across organizational boundaries and with delivery partners including management milestones met

- Identification, assessment, and prioritization of probable risks that may impact program delivery or outcomes significantly in the coming year or two

- Effectiveness of scaling efforts

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363 Ibid., 51.

- Budgetary, regulatory, or legislative constraints that may have an impact on progress[364]

G. INFORMATION TECHNOLOGY SYSTEM

In DHS's 2014–2018 Strategic Plan, the Analytic Agenda initiative described the data collection and management challenge:

> The Department of Homeland Security must be able to harness vast amounts of data to inform strategy and future planning. There are a number of key areas where DHS must improve its ability to collect new data, analyze existing data, and present data in a compelling way to our partners and the public. The Department's four-year Analytic Agenda provides the foundation for tackling this "Big Data" challenge and supporting analytically-informed decision-making across DHS missions.[365]

This "big data" challenge is immense given the Department's diverse and complex mission sets. Typically, the big data moniker invokes a massive information technology and knowledge management system acquisition. DHS's priorities are stated to be "building and institutionalizing the necessary data, models, and business process." The topical development approach will help place the priorities in the proper perspective. Before another information management system can be developed, the processes and data requirements will need to be better defined.

The DOD has used the Status of Readiness and Training System (SORTS) since 1986 to "report on readiness across the services. SORTS compares the level of inputs to target amounts determined by the services. Individual units are measured on a scale of one to four in four areas: personnel, equipment and supplies on hand, equipment condition, and training."[366]

SORTS uses quantitative indicators and commanding officers' judgments to assess if units have the personnel, equipment, training, and supplies they need to go to

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364 OMB, *Circular No. A-11,* Part 6, Section 270.10.

365 DHS, *Fiscal Years 2014–2018 Strategic Plan*, 11.

366 Harrison, "Rethinking Readiness," 44.

war.[367] While SORTS has been the most comprehensive and widely used readiness reporting system in the DOD for more than 25 years, it has also been subject to much of the same criticism attributed to DHS measurement systems. Among the critiques are: it uses subjective inputs, is prone to errors, lacks standardization, and delivers misleading scores due to broad measurement standards that can mask underlying problems in critical areas.[368] The DOD's newest capability system is the Readiness and Reporting System (DRRS). Although it has taken more than 10 years to implement, it is now widely accepted in DOD as an improvement over SORTS. Even with a legacy system to upon which improve, and years of development, two concerns about DRRS remain standardization and subjectivity.[369]

The USAF utilizes a web-based program called the Management Internal Control Toolset (MICT) to manage the enterprise self-assessment and inspection system. It provides information transparency and data ranging from a complete compilation of all current and relevant guidance, policy, directives, and statutes to audit histories and individual self-assessment results. The USAF also uses the self-assessment data and history to more effectively manage their unit inspections by identifying specific subject-matter experts for on-site inspections to ensure the identified problems and challenges are fully addressed. These experts can also provide mentoring and assistance in resolving the issues.[370] Finally, when the self-assessment identifies a program or process deficiency, MICT has a built-in tool to facilitate a corrective action process that tracks progress until the root cause of the shortfall is under control.[371] MICT's standardized and comprehensive data storage can also benefit headquarters staff through enterprise-wide

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367 Adebayo Adedeji, *Linking the Readiness of the Armed Forces to DOD's Operation and Maintenance Spending*, (Washington, DC: Congressional Budget Office, 2011), https://www.cbo.gov/sites/default/files/04-25-readiness.pdf.

368 R. Derek Trunkey, *Implications of the Department of Defense Readiness Reporting System* (Washington, DC: Congressional Budget Office, 2013), Working Paper 2013–03, 6.

369 Trunkey, *Implications of the Department of Defense Readiness Reporting System*, 12.

370 Secretary of Air Force (IG), *Air Force Inspection System*, 29.

371 Camm et al., *Charting the Course*, xv.

trend analysis and can reveal systemic issues that warrant close or immediate attention. It can also more effectively identify best practices.[372]

The DOD has used readiness and capability reporting systems for decades, and should be considered for lessons learned and benchmarking. The military and homeland security enterprise have common missions; both respond to crisis situations; prepare for the unexpected through training and exercises; acquire, maintain, and sustain professional equipment; and maintain a cadre of experienced and ready personnel. These shared traits provide the basis to explore the DOD's system of assessment for features that will mitigate long-standing performance measurement issues in DHS.

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[372] Ibid., 78.

V. CONCLUSIONS

The conclusions and recommendations from this research form a starting point to better understand preparedness within the homeland security enterprise, and to develop a means to accurately report and understand national gaps and priorities.

There are many established tools and techniques to apply to the performance management system. A few of these were discussed in this thesis to illustrate potential applications, but the discussion only serves as an introduction to what will be a long and intensive effort. Success in this endeavor will only be realized through persistent and dedicated efforts with support and engagement from senior leaders across the enterprise.

A. FINDINGS

The Homeland Security Enterprise Lacks Sufficient Performance Management Expertise

While federal agencies are required to have performance improvement officers (PIO) included within their organizations, these professionals' ability to adequately address process performance across the whole of community is inadequate. If reporting on national preparedness is to improve, a dedicated and knowledgeable team of performance professionals working within the SLTT jurisdictions is needed.

(1) **Recommendation 1:** DHS should establish an initial cadre of SLTT performance improvement officers providing one position to each of the 56 jurisdictions.

Creating federal PIO positions will ensure standardization and control over the process. This is essential to reduce the tendency for local jurisdictions to use the performance management process improperly or skew reported data to gain an advantage in grant-funding allocations. Additionally, hiring the PIOs under federal systems will establish benchmarks for the required PIO knowledge, skills, and abilities and standardize their salary schedules to provide uniform competency across the enterprise.

The portfolio of these positions would include all of the DHS-related block grant funding streams. Therefore, states with more complex federal revenue streams due to

multiple UASI cities, water ports, and tribal entities, among other grant programs, will require a potentially higher-experienced PIO, or even perhaps an assistant. These additional requirements should be balanced by the less complex states and territories. If the average salary for a PIO position is $100,000, and this figure is tripled to account for benefits and job function expenses, the total annual outlay for sustaining the human capital portion of this capability is approximately $16.8 million.

The amount provided to SLTT jurisdictions through FY 2014 preparedness grant programs was in excess of $1.6 billion, making the investment in performance capability only 0.01 percent of the total allocation. Prior analysis indicated "the cost of using federal employees or contractors to collect and validate preparedness data at the state and local levels would be cost-prohibitive."[373] Using these resources to analyze and inform the entire preparedness process—not just collecting and validating data—should easily pay for itself through increased efficiencies and a more effective national program.

Undoubtedly, this recommendation will not resolve DHS's performance management challenges alone. The SLTT jurisdictions will also need to train executives and program managers in performance improvement techniques and processes. SLTT jurisdictions should also dedicate a staff position to work with the federal PIO.

(2) **Recommendation 2:** DHS should establish standardize performance management training curricula or identify an existing training program for federal and SLTT personnel.

Creating a training program specific to DHS will result in standardize tools and techniques used throughout the enterprise. It will also serve as a means to capture lessons learned and good practices from the field as PIO practitioners move through advanced courses of study. A DHS-specific training program can also be tailored to provide awareness training for operational staff to better understand their roles in the performance management process as well as the importance of standardized measurement collection and reporting.

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373 GAO, *FEMA Has Made Limited Progress in Efforts to Develop and Implement a System,* 13.

Performance Measures for the Enterprise are Ineffective and Deficient

The cadre of PIOs focused on SLTT performance management using standardized methodologies will provide the best opportunity to identify valid, timely, consistent, attainable, and actionable data on SLTT programs and processes that will better inform DHS and Congress on national preparedness. Over time, these efforts will help inform funding levels and priorities for national priorities. In addition, the data will begin to show program development progress and promote efficiency by identifying sustainment funds for mature programs and freeing up resources for building the next priority capability.

In conjunction with the development of performance metrics, the PIO cadre will be invested in designing and contributing to the state and national preparedness reports, state and federal strategic planning efforts, THIRA reporting, grant reporting requirements, and federal and state process improvement efforts.

(3) **Recommendation 3:** DHS should establish the critical few common measures within each mission area and initial reporting criteria for SLTT jurisdictions.

DHS, through the preparedness PIOs, should identify two to three common metrics for each of the five DHS mission areas for SLTT jurisdictions to collect and analyze. Each metric will have established standards and criteria. Once enough data is collected to analyze and establish trends, the data will be evaluated for quality and relevance. Acceptable data elements will be incorporated into the performance management system with benchmarked performance goals and timelines.

(4) **Recommendation 4:** DHS should delay investment in and development of an SLTT-specific performance/comprehensive assessment system.

Any further investment into developing a web-based or other comprehensive assessment system should be postponed until the metrics feeding the performance management system are vetted and functional, and the process for reporting and interfacing with the system are established and tested. Incorporating SLTT data into the system will significantly change how information and knowledge are generated and

increase the complexity of analysis. Understanding the new process and information availability will inform the technological system requirements. Additional processes to consider including in the next version of the system are: audit, assessment, and inspection findings; after-action reports; and corrective action plans and results.

The next iteration of the comprehensive assessment system should take advantage of the capabilities of legacy systems as well as the lessons learned and shortfalls. Further development of a performance assessment system includes the "need for more effective coordination with state, local, and tribal governments and the need for information technology systems that are updated and integrated throughout the agency."[374]

(5) **Recommendation 5:** The DHS should develop measures of efficiency and effectiveness for the PIO program to identify areas for improvement and report on value for savings achieved.

SLTT PIO program will need to show value and results for continued funding and ultimate sustainment. These measures should undergo the same rigor and quality standards as the key metrics supporting the core mission areas. This data should inform senior leaders on effective use of the resources and highlight areas for improvement.

Alignment of Strategic Goals Is Weak

DHS's ability to assess and report on national preparedness is dependent on SLTT capability reporting. To gain a true assessment, data from the private sector, non-governmental organizations, and non-profit organizations will also need to be collected and included in the overall assessment. The process of collecting and compiling this data, however, will require an iterative approach that includes adding additional sources of data as the system matures. Aligning the data collection efforts of the SLTT jurisdictions to national strategic priorities will facilitate a more comprehensive and accurate national preparedness assessment.

(6) **Recommendation 6:** DHS should devise a method to normalize data that does not share common attributes or collection standards.

Data that is standardized and common across the entire homeland security enterprise will be small in comparison to the total available data. To adequately assess

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374 DHS Office of the Inspector General, OIG 10–23, FEMA's Preparedness for the Next Catastrophic Disaster -An Update, September 2010, 8.

national preparedness, the non-standard data or data unique to specific jurisdictions will need to be developed in such a way that it can contribute to the overall assessment. Data quality will continue to be a significant concern to ensure the data input retains validity, consistency, timeliness, and accuracy. Normalization of this data can be accomplished using benchmarked.

(7)   **Recommendation 7:** DHS should use OIG and other external assessment findings to determine challenges and issues systemic to the homeland security enterprise.

The OIG has performed audits and assessments of state and local homeland security programs for many years, reporting on findings in areas such as "homeland security strategies, obligation of grants, reimbursement to subgrantees for expenditures, and monitoring of subgrantees' performance and financial management, procurement, and property management."[375] Many of the OIG's findings have been reported on over many years and other findings are evident in almost all of the jurisdictions assessed. Processes and procedures deemed critical to the performance of the homeland security mission or proper stewardship of taxpayer dollars are as important to the overall enterprise as building capabilities. These identified findings should become a focus of the performance management system and should be included in metric development and tracked to resolution.

A technique to analyze OIG data can be derived from the USAF OIG. They establish broad categories of codes to be used in identifying deficiencies, results, or findings during their inspection process. The codes are broken down into: equipment/tools, guidance, leadership/supervision (LS), resource shortfall (RS), safety, training, and human factors. In addition, sub-categories are assigned with a sequential numbering system. For example, "LS8—Unit failed to adequately program resources" is a code given when management improperly allocated resources. In this instance, the causal factor was attributed to poor management decisions and not to a general lack of resources

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375 Department of Homeland Security Office of Inspector General, *Countering Terrorism; Semi-Annual Report to the Congress* (Washington, DC: DHS, April 1, 2014—September 30, 2014), https://www.oig.dhs.gov/assets/SAR/OIG_SAR_Apr14_Sep14.pdf.

where a code of RS would have been assigned.[376] This type of coding system facilitates the analysis of data through categorization and provides the headquarters agency a means to identify trends across the enterprise. This analysis can highlight areas for future analysis and expose gaps in data and information.

(8)   **Recommendation 8:** DHS should expand the SLTT PIO role to include all federal block grant programs.

The focus of this thesis was limited to national preparedness efforts within the DHS mission portfolio. Because of the broad scope of interdependencies within the homeland security enterprise, there are numerous opportunities for other federal stakeholders to include their SLTT grant programs in the performance management system. Stakeholders such as the Departments of Justice, Interior, Treasury, Housing and Urban Development, Agriculture, Commerce, Education, Defense, State, Health and Human Services, and Transportation all have SLTT grant programs that either complement or directly support DHS missions and goals. Analyzing all of the grant opportunities and aligning the outcomes of individual grant goals and objectives to national priorities would reduce redundancy of effort and improve overall effectiveness. Improved cooperation and coordination among the programs at the federal level will also facilitate improved synergy among the associated departments within and among the SLTT jurisdictions.

The Self-assessment and Reporting Process Is Ineffective

The primary weakness of prior DHS assessment systems was the inconsistencies generated by self-assessing and reporting. While self-assessment will always be a component of the overall evaluation, a means to validate the reported information is needed. The addition of the SLTT PIOs provides a means to validate select processes and data collection methods on a random and as-required basis. A rigorous and comprehensive validation and review will be required within a predetermined period to ensure strategic decisions are based on reliable data.

(9)   **Recommendation 9:** DHS should expand the OIG's role to include an assessment of performance management and business processes.

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376 Secretary of Air Force (IG), *Air Force Inspection System*, 214–220.

Current assessments by DHS OIG or DHS headquarters staff tend to evaluate SLTT products such as strategic plans, THIRA data, or preparedness reports as complete or incomplete. This approach does not evaluate how these documents are integrated into the SLTT decision-making process, stakeholders' involvement in generating the documents, or the rigor and analysis put into the products. The result is a check-box mentality that overlooks or fails to take full advantage of the process's benefits. An expanded OIG assessment into the agency's business practices would provide increased confidence in data quality and local capabilities.

(10)   **Recommendation 10**: DHS should incorporate practitioners from federal as well as SLTT jurisdictions into the OIG assessment process.

The OIG should be augmented by highly experienced and specifically trained staff to facilitate the expanded assessment. These staff should be vetted by central authority for required experience and expertise, and nominated as OIG inspection team augmenters. Once approved, the staff member should attend an inspection training course and complete a set number of inspections as an observer before being cleared as a primary inspection team augmenter. Augmenters should come from a wide range of agencies and offices to include DHS, FEMA, FEMA regional offices, tribal, state, and local jurisdictions. This practice will improve information sharing and distribution of good practices across the enterprise.

Policy Decisions on Roles and Responsibilities are Needed

National preparedness has been defined through the whole community concept. Each part of the whole community needs to understand its function in the enterprise and its expected actions to best satisfy preparedness requirements. As funding allocation decisions are made to develop and carry out those functions, the appropriate level of government that can best oversee the accomplishment of the goals and objectives needs to be identified. Federal and state agencies need to be involved in an open and transparent debate about the veracity of analyses that determine funding levels. Only then will different levels of government understand how effectively and efficiently they have used preparedness funds.

(11) **Recommendation 11**: DHS should clearly define specific roles and responsibilities for developing capabilities within each mission area.

To best determine funding decisions, every agency or department will need to understand how they are expected to contribute to meeting national strategic goals and objectives. Without a clear understanding, SLTT jurisdictions could either squander resources to build capabilities that are already, or SLTT jurisdictions could erroneously assume the capability is being managed by the federal government, resulting in a gap in national capability.

Funding Decisions Are Required

Funding decisions will drive DHS's ultimate ability to successfully report on the state of national preparedness. However, the combination of recommendations presented here goes beyond satisfying a mandated report. In addition to better understanding current national preparedness levels, these recommendations serve as a foundation to improve the enterprise through a more efficient use of resources and through better-informed decisions making and priority setting.

Establishing a cadre of 56 PIOs to facilitate SLTT performance assessment (and general process improvement) is not the total solution. There will be costs for an increased oversight and assessment program as well as specific training programs. These costs are essential to begin building the capability to meet the intent of GPRAMA and other federal laws.

(12) **Recommendation 12**: DHS should fund PIO capability for all 56 states and territories and an expansion of SLTT oversight.

This funding should remain stable over a five-to-ten-year period for program stabilization. The impact to SLTT grant recipients should not dramatically change until some maturity in the data collection process is developed and there is a reasonable confidence in the analysis.

B. LIMITATIONS

1. Political Pressures

One of the core challenges of a transparent and data-rich decision-making environment for determining funding allocation is the resulting change to the status quo. Jurisdictions that have influential or powerful congressional delegations could feel compelled to intervene when their constituents receive fewer funds as a result of the data analysis. Arguments could be made that the data is inaccurate or incomplete, or that the analysis was flawed or skewed. These interventions could undermine the entire effort of maturing the performance management system. Achieving consistent measures of effectiveness over time is difficult due to the demands of an ever-changing market environment and goal expectations. This is especially true for disaster management agencies, whose goals may be affected by the vagaries of political conditions rather than market conditions.[377]

2. Investment of Time and Resources

Just as Congress has demanded an accounting for the money spent in preparedness grants, so, too, will DHS want to see a positive return on investment for the cadre of PIOs. DHS should establish meaningful goals and objectives and a realistic timeline for developing the PIO program. In addition, a robust communication plan and awareness campaign should be initiated for appropriate congressional committees and stakeholders with frequent updates.

3. Leadership Buy-in

Program success will require support from the entire enterprise. The assigned PIOs will provide the necessary skills and knowledge to the performance management process, but results will depend upon SLTT leaders, directors, and program managers' abilities to implement and sustain an effective system.

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377 Kirschenbaum, "Measuring the Effectiveness of Disaster Management Organizations," 81.

4. Enterprise Instability

Emergencies and disasters are often "all hands on deck" events that take SLTT staff members away from their normal duties. The time to attend to response and recovery efforts for large events (relative to the jurisdictions' capacity and experience) can disrupt normal operations for weeks or months. During this time, the priority for resource utilization will likely not include collecting and analyzing performance data. This poses a dilemma for the performance management system, since some of the most valuable outcome and output data is exhibited during crisis events. Incorporating data collection into the normal incident command tools and techniques will facilitate the collection and analysis of valuable data without detracting from normal response and recovery activities.

C. SUMMARY

DHS is an agency accustomed to wicked problems. Indeed, an array of wicked problems is at the essence of its core missions, and even inherent in DHS's founding motivation. Performance management is not one of DHS's core mission areas, but is a discipline that can help focus all of its core missions and transform the homeland security enterprise into a more effective collaboration with measurable efficiency. DHS's inability to adequately report on performance indicators over the past decade has elevated its performance management efforts to a "wicked" status.

For years, DHS implemented top-down strategies and approaches to establish a preparedness performance management system. As of this writing, there are few substantive results to show for the effort. The recommendations proposed in this thesis will shift the primary emphasis and effort of collecting and analyzing preparedness data from DHS headquarters to the SLTT grant recipients. Utilizing federal PIOs to guide and oversee the process will facilitate a standardized approach, while utilizing SLTT expertise for capturing data, identifying innovative strategies, and initiating collaborative solutions.

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